IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of

John C. Harvey and James W. Cuddihy   Examiner: WOLINSKY, S.

Serial No. 08/484,858   Group Art Unit: 2742

Filed: June 7, 1995   Atty. Docket. 05634.0362

For: SIGNAL PROCESSING APPARATUS
AND METHODS

BOX: ISSUE FEE - AMENDMENT

Assistant Commissioner of Patents
 and Trademarks
Washington, D.C. 20231

Sir:

  I. **REQUEST TO ENTER AMENDMENT AFTER NOTICE
    OF ALLOWANCE AND AFTER PAYMENT OF ISSUE
    FEE UNDER 37 C.F.R. § 1.312(A)**

   This amendment after the notice of allowance and payment of the issue

fee is submitted in response to the interviews on June 16th, July 1st and 15th, 1999

and per request of the Examiners of the PTO. Applicants respectfully request

that the following amendments be considered and entered into the above-

captioned application and the claims be permitted to issue:

In the Claims:

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9. (Three Times Amended) A method of communicating subscriber station information from a subscriber station to one or more remote stations, said method comprising the steps of:

(1) storing [subscriber] first data which are subscriber data at [the] said subscriber station;

(2) receiving and detecting at said subscriber station, in an information transmission received from said one or more remote stations, one or more instruct signals which operate to cause at least [some part] a portion of a combined medium presentation to be outputted at an output device of said subscriber station;

(3) [generating one or more first subscriber specific] computing, second data at said subscriber station by processing at least one of said first data in accordance with said one or more instruct signals [by processing said stored subscriber data];

(4) inputting a subscriber response to said outputted combined medium presentation, wherein said outputted combined medium presentation includes (i) one of an image and a sound received at said subscriber station from a remote transmitter station and (ii) a portion of said second data; and

(5) transferring one [or more second subscriber specific] datum of said first data and said second data from said subscriber station to said one or more remote stations based on said subscriber response.

16. (Twice Amended) A method of communicating subscriber station information from a subscriber station to one or more remote stations, comprising the steps of:

receiving an information transmission at a transmission station;

generating one or more instruct signals at said transmission station, said one or more instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more instruct signals and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response to a combined medium presentation output <u>at an output device</u> at said subscriber station, <u>said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more instruct signals;</u> and

transmitting said information transmission and said one or more instruct signals from said transmission station to said subscriber station.

17. (Twice Amended)   A method of communicating subscriber station information from a subscriber station to one or more remote stations, comprising the steps of:

receiving, at a first transmission station, an information transmission to be transmitted;

receiving a first instruct signal which is effective to accomplish one of:

(a) effecting a second transmission station to generate one or more second instruct signals, said one or more second instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more second instruct signals and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response to a combined medium presentation outputted <u>at an output device</u> at said subscriber station, <u>said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote</u>

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source and (ii) a datum computed at said subscriber station in response to said one or more instruct signals; and

    (b)   effecting a receiver station to generate one or more second instruct signals, said one or more second instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more second instruct signals and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response to a combined medium presentation outputted at an output device at said subscriber station, said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more instruct signals;

    receiving a transmitter control signal which operates to communicate at least one of said first and second instruct signals to a transmitter; and

    transmitting, from said first transmission station, said information transmission and said first instruct signal, wherein said information transmission and said first instruct signal are transmitted from said first transmission station (i) in response to said transmitter control signal, or (ii) with said transmitter control signal.

    In claim 29, line 1, please delete "detected".

    34.   (Twice Amended)   A method of communicating subscriber station information from a subscriber station to one or more remote stations including:

receiving one or more information transmissions at said subscriber station, said information transmissions including generally applicable information and a plurality of combining control signals, said generally applicable information including (1) some of a user specific combined medium presentation and (2) video to serve as a basis on which to present said some of a user specific combined medium presentation, at least said plurality of combining control signals being received from said one or more remote stations;

storing [at least some] a portion of said generally applicable information and said plurality of combining control signals at said subscriber station;

outputting said video at a video monitor;

selecting user specific information to output by processing said generally applicable information in accordance with at least a first of said plurality of combining control signals;

outputting said selected user specific information in a series of times of specific relevance in response to at least a second of said plurality of combining control signals;

inputting at said subscriber station a first subscriber response to said user specific combined medium presentation, said user specific combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more of said plurality of combining control signals; and

transferring one or more subscriber specific data from said subscriber station to said one or more remote stations based on said first subscriber response.

II.   REMARKS

A.   Summary of Amendments to the Claims

Claim 9, 16, 17, 29, and 34 are amended. Claims 9-46 are pending in the application.

It is proposed to amend claim 9 to positively recite that the data stored in step (1) are subscriber data. In step (2) above, it is positively set forth that the one or more instruct signals that are detected are also received. It is further recited that the combined medium presentation to be outputted at the subscriber station is to be output at an output device. In step (3) above, "one or more first subscriber data" has been relabeled "second data." The order of the phrasing of step (3) has also been rearranged for clarity. In step (4), the combined medium presentation has been positively defined. Step (5) above is amended to be consistent with the amendments to steps (1) and (3).

It is proposed herein to amend claims 16 and 17 to positively recite that the combined medium presentation is output at an output device at the subscriber station and also to positively define the combined medium presentation.

Claim 29 is amended above to provide proper antecedent basis for said one or more instruct signals.

Claim 34, as amended above, positively defines the combined medium presentation.

Applicants respectfully submit that the amendments proposed herein include no new matter. The amendments are intended to simplify the issues discussed with the Examiner at the recent interviews by positively reciting significant limitations that were previously implied or considered ambiguous.

B.   General Overview and Summary of Applicants'
1987 Disclosure

While the Examiners suggest that Applicants' 1987 disclosure may appear to contain a series of isolated examples, Applicants maintain that their examples are carefully tied together. An essential feature of Applicants' disclosure in the specification is that they explain their invention and the various embodiments thereof and their interrelationship. The following description provides the complete context of the disclosure, illuminating important timing and error correction considerations and explaining the interrelationship of Applicants' full system.

One clear series of teachings is focused around the "Wall Street Week" combined image of Fig. 1C. A first part of this image is received in a television signal. Fig. 1B shows this first part. A second part, Fig. 1A, is generated at the viewer station by processing data, which exists at the viewer station, in response to control instructions which are detected in the television signal. In a section entitled "One Combined Medium" (pages 19-28) at the beginning of the Description of the Preferred Embodiments, a sequence of events associated with the display of Fig. 1C is disclosed. A first series of instructions invoke broadcast control (defined at page 23 lines 24-26), which includes clearing video RAM. A second series of instructions construct the Fig. 1A image at video RAM. The Fig. 1B image is received in the "Wall Street Week" program, and is explained by the program host as showing the performance of the Dow Industrials. When the host says, "And here is what your portfolio did," an instruction in the television signal executes "GRAPHICS ON" which combines the Figs. 1A and 1B images and displays Fig. 1C. After an interval of time during which corresponding personalized programming is displayed simultaneously to every properly equipped member of the "Wall Street Week" audience, an instruction executes

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"GRAPHICS OFF" and causes Fig. 1A no longer to be displayed. The disclosure

defines "combining synch command" at page 26 lines 20-24, and explains that

instructions that construct the Fig. 1A, execute "GRAPHICS ON", and execute

"GRAPHICS OFF" each comprise a combining synch command. Subsequently,

these are referred to throughout the disclosure as the **"first", "second", and "third**

combining synch commands of the 'Wall Street Week' example".

After providing a detailed disclosure of apparatus of the invention (called

"SPAM" apparatus) and of the composition of messages and message streams,

four examples, between pages 108 and 248, disclose alternate ways of processing

the first, second, and third combining synch commands of the 'Wall Street Week'

example. These examples reference Fig. 3. Example #1 describes transferring the

messages to an addressed controller and causing the controller to respond.

Examples #2 and #4 disclose alternate decryption techniques whereby portions of

the message stream containing the three combining synch commands are

selectively decrypted. Examples #3 and #4, which reference Fig. 3A as the

controller of decoders 203 and 205C, disclose the collection of metering data (e.g.,

for billing purposes) and monitoring data (e.g., for TV viewership ratings) based

on content of the first two combining synch commands. Each example discloses

control of a sequence of events, and describes carefully how its sequence occurs

within the broader context of "One Combined Medium" at pages 19-28.

Specifically each of examples #1, #2, #3, and #4 elaborates on the portion of "One

Combined Medium" from page 24 line 1 to page 27 line 7. In these four

examples, each later example builds upon concepts disclosed and definitions

provided in the earlier examples.

Example #5 (pages 248-271) focuses on functions performed by Signal

Processor 200 in Fig. 3 *concurrently with* the sequence of events described in "One

Combined Medium" *and at apparatus which perform* the metering and monitoring

of examples #3 and #4. The first combining synch command of the "Wall Street Week" example is also processed in example #5. Example #5 introduces concepts that are subsequently used (e.g., in example #7) to teach automatic selection of programming, including the "Wall Street Week" program itself. At pages 271-278, the disclosure explains how the metering and monitoring, in particular of the first combining synch command of the "Wall Street Week" example, causes the content of recorder 16 to exceed a predetermined level which causes the Signal Processor to telephone a remote data collection station and dump the content of recorder 16 to the remote station.

Example #7, which occurs at pages 288-312 and 427-447 and incorporates concepts of example #6, teaches selection of the "Wall Street Week" program itself, interconnection of subscriber station apparatus to provide station specific processing *alternatives* based on pre-stored instructions, and decryption of the "Wall Street Week" program transmission. The disclosure teaches (e.g., page 311 lines 10-16) how this causes the station (now of Fig. 4 or Fig. 7 which are subscriber stations of the intermediate transmission station of Fig. 6) to perform the functions "One Combined Medium" and examples #1-#4.

The disclosure also cites (pages 322-333) and sites the "Wall Street Week" monitoring and metering functions within the extended Fig. 5 monitoring disclosed at pages 312-314.

In "Controlling Computer-Based Combined Media Operations" (pages 447-457), the disclosure teaches how the "Wall Street Week" subscriber portfolio contents and stock price data come to be up-to-date when the program begins, teaches that the Fig. 1C combining is the first of a series of overlays, teaches error detection techniques to prevent the display of incorrect or incomplete overlays, and teaches error correction techniques to enable slow viewer station computers that fall behind to catch up.

A second clear series of teachings is focused around a television spot commercial called **program unit Q.**

Within the disclosure of automated intermediate transmission station functionality that begins at page 324, program unit Q is introduced at page 331 lines 21-22 in a passage that teaches organizing units of prerecorded programming to play according to schedule.

Example #8 (pages 340-354) discloses that program unit Q is a television spot commercial and teaches how it is transmitted with other spot commercials from a satellite up-link to automated cable TV head-ends which are caused automatically to select, store, and retransmit the spot commercials at different times and on different channels.

Example #9 (pages 354-374) discloses that program unit Q is a combined medium television spot commercial and teaches how one of the automated head-ends of example #8 creates and transmits according to a schedule a time specific and transmitter specific control signal with data that applies to specials and discounts in a local supermarket at the scheduled time of transmission. The relationship of examples #8 and #9 is discussed at page 355 lines 15-32.

Example #10 (pages 374-390) teaches how the automated head-end (as one of a plurality of such head-ends each) creates the time specific and transmitter specific control signal with data and inserts the control signal into a network broadcast of combined medium program unit Q.

The subscriber station functionalities associated with both examples #9 and #10 (see page 469 line 1) are taught at pages 469-516. Each of a plurality of viewer stations creates receiver specific output in response to the control signal(s) as well as selecting viewer specific output from among the transmitted transmitter specific data. Each outputs its output in a series of time intervals of specific relevance. The relationship of pages 469-514 to pages 324-390 is explicit

and unmistakable in that every disclosure (e.g., 354-374, 374-390, and 469-516) teaches a sequence of more than thirteen messages with matching names. These include, for example, the "transmit-and-execute-program-instruction-set message" (page 371 lines 9-10, page 385 lines 7-8, and page 484 lines 1-2) and "program-instruction-set message" (page 371 lines 17-19, page 385 lines 14-16, and 484 line 5). Furthermore, corresponding named ones of these messages are disclosed in each respective passage (e.g., 354-374, 374-390, and 469-516) to have functionally identical content and to cause identical functioning at the subscriber stations. The passage at page 514 lines 8-30 states this.

Having disclosed all the individual elements and procedures of their system, Applicants finish their disclosure by describing a cycle in "Summary Example #11". The cycle involves controlling the disclosed system on a large scale to interconnect and distribute information to users, create control signals, create output in response to the control signals, display and explain the information and output, and receive and process feedback in order to repeat the cycle. Important disclosed functions such as preprogramming operating system instructions (page 537), creation of control signals (pages 541-547), creation of output for display (e.g., pages 548-551), display of the output (e.g., middle of page 552 to top of page 554), reception of feedback (pages 555-556), and distribution of new information based on the feedback (page 556) are cited in specific sequence and make clear reference to the pertinent portions of the specification that disclose these important functions.

C. Specification Support of the Claims

1. Claim 9

In example #9/#10 of the 1987 patent specification, a viewer watches television programming (a cooking program with a commercial advertising supermarket products) with includes a combined medium presentation. Instructions contained in a control signal are detected and cause the viewer station to compute a shopping list for the viewer by processing a file containing data regarding the size and taste preferences of the viewer's family. The combined medium presentation communicates an offer to the viewer regarding an ingredient of the viewer's shopping list. The viewer responds to the offer and causes the shopping list to be communicated to a remote computer of the supermarket by telephone.

Claim 9 finds support at pages 469-516 of the specification.

Claim Language	Spec. Reference	Specification Language
A method of communicating subscriber station information	Page 511 lines 3-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
from a subscriber station	Page 469 lines 7-10.	...the station of Fig. 7 and 7F, is preprogrammed to receive and process automatically meal recipe instructions and holds records of the size of the family of the subscriber of said station
to one or more remote stations, said method comprising the steps of:	Page 511 line 5.	...a remote station....
(1) storing first data which are subscriber data at said	Page 469 lines 7-17.	The microcomputer, 205, of the station of Fig. 7 and 7F, is preprogrammed to receive and process automatically meal recipe

subscriber station;		instructions and holds records of the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family. For example, particular information is recorded in a file named DATA_OF.URS that is on a so-called "floppy disk" that is loaded at the A: disk drive at said microcomputer, 205. Said information specifies that said family prefers particular very hot and spicy foods, prefers to minimize salt consumption, and consists of four adults.
(2) receiving and detecting at said subscriber station, in an information transmission received from said one or more remote stations,	Page 473 lines 3-15.	One minute later, said program originating studio embeds in the transmission of said "Exotic Meals of India" programming and transmits a particular second SPAM message that consists of an "01" header, particular execution segment information that is identical to said covert control information, appropriate meter-monitor information including unit code identification information that identifies the programming of the information segment of said message, padding bits as required, information segment of particular generate-recipe-and-shopping-list instructions, and an end of file signal. At the station of Figs. 7 and 7F, said message is detected at TV signal decoder, 145,....
	Page 484 lines 1-6.	Then said studio transmits said transmit-and-execute-program-instruction-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific program-instruction-set message (#10), as described above.
	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
one or more instruct signals which operate	Page 59 lines 29-33.	A SPAM message is the modality whereby the original transmission station that

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to cause		originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
	Page 473 lines 29 to page 474 line 17..	Receiving said message causes the controller, 39, of decoder, 203, to load and execute said generate-recipe-and- shopping-list instructions at microcomputer, 20...
	Page 507 lines 22-33.	Then said program originating studio embeds and transmits said 6th commence-outputting message (#10). Said message is identical to the 4th commence-outputting message (#10) except for different overlay number field information. In the same fashion that applied to receiving the 4th commence-outputting message (#10), receiving the 6th commence-outputting message (#10) causes apparatus at each subscriber station that has completed the generation of second audio image information to combine its specific audio information to the transmitted audio and to emit sound of its combined audio.
at least a portion	Page 507 line 33 to page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
of a combined medium presentation to be outputted at an output device of said subscriber station;	Page 2 lines 8-19.	Today great potential exists for combining the capacity of broadcast communications media to convey ideas with the capacity of computers to process and output user specific information. One such combination would provide a new radio-based or broadcast print medium with the capacity for conveying general information to large audiences—e.g., "Stock prices rose today in heavy trading,"--with information of specific relevance to each particular user in the audience—e.g., "but the value of your stock portfolio went down." (Hereinafter, the new media that result from such combinations are called "combined" media.) Unlocking this potential is desirable because these new media will add substantial richness and variety to the communication of ideas, information and entertainment.
	Page 507 lines 12-21.	Said studio then transmits audio information

		of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568*" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"
	Page 507 line 33 to page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
(3) computing second data	Page 474 lines 2-6,	Executing said generate-recipe-and-shopping-list instructions causes microcomputer, 205, to generate information of the specific fish curry recipe and fish curry shopping list of the family of the subscriber of the station of Figs. 7 and 7F
	and lines 14-15.	one ingredient of the recipe of said family is "Patak's low- salt Vindaloo Curry Paste"
at said subscriber station by processing at least one of said first data in accordance with said one or more instruct signals;	Page 474 lines 8-32.	Automatically, microcomputer, 205, accesses its A:DATA_OF.URS file, in a fashion well known in the art, and selects the aforementioned information that specifies the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family; determines that one ingredient of the recipe of said family is "Patak's low- salt Vindaloo Curry Paste" (because said family prefers particular very hot and spicy foods and prefers to minimize salt consumption); computes that, at one-half pound of halibut fish and one teaspoonful of said Vindaloo Paste per adult, the recipe of said family (which is of four adults) calls for two pounds of halibut and four teaspoonfuls of said Paste and that the shopping list of said family lists

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		two pounds of halibut and one jar of "Patak's low-salt Vindaloo Curry Paste"; incorporates information of said two pounds and four teaspoonfuls of "Patak's low-salt Vindaloo Curry Paste" into generally applicable information of the recipe of said "Exotic Meals of India" programming and information of said two pounds and one jar of "Patak's low-salt Vindaloo Curry Paste" into generally applicable information of the shopping list of said programming, thereby generating (through the processes of so determining, computing, and incorporating) output information of the specific recipe and shopping list of said family.
(4) inputting a subscriber response to said outputted combined medium presentation,	Page 508 line 29-30.	At the station of Figs. 7 and 7F, the subscriber enters TV568* at the keyboard of local input, 225...
wherein said outputted combined medium presentation includes (i) one of an image and a sound received at said subscriber station from a remote transmitter station and (ii) a portion of said second data; and	Page 505 lines 25-30.	studio transmits audio information of the announcer saying: "Curry Paste. Your local Super Discount Supermarket has a complete line of Patak's Curry Paste products in stock. Call the telephone number,"
	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
	Page 506 line 32 through page 507 line 21.	Said studio then transmits audio information of the announcer saying, "that you see on your screen to have your order delivered to your door. Or if you enter on your Widget Signal Generator and Local Input the information that you see here on your screen," Said studio transmits video information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner. Thus each viewer—including the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber— can see TV568* in the upper left hand corner of the picture on the monitor, 202M, of his station. Said studio then transmits audio

		information of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"
	Page 507 line 33 through page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter TV568" on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
(5) transferring one datum of said first data and said second data from said subscriber station to said one or more remote stations based on said subscriber response.	Page 510 line 26 to page 511 line 9.	Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700. Automatically, in the fashion described above, controller, 20, establishes telephone communications with a computer of said super market chain at a remote station. Then said call-this-number-and- respond-with-"A:SHOPPING.EXE" instructions cause controller, 20, to cause the instruction "A:SHOPPING.EXE" to be entered to microcomputer, 205. Entering said instruction causes microcomputer, 205, to execute the instructions of said file, "SHOPPING.EXE" as a machine language job. Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.

2. Claim 10

Claim Language	Spec. Reference	Specification Language
The method of claim 9, wherein said detected one or more instruct signals include at least some part of a software module and a data module, said method further comprising the steps of:	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 483 lines 2-13.	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS". At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and.execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 16 lines 21-22.	Flexibility must exist for expanding the capacity of installed systems by means of transmitted software....
receiving and storing said one or more of a software module and a data module; and subsequently	Page 484 lines 12-18, and page 483 lines 2-13.	*See above.*
presenting a combined	Page 491 lines 10-16.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information.

		And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
or sequential output of mass medium programming	Page 507 lines 12-21.	Said studio then transmits audio information of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568*" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"
	Page 507 line 33 to page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
and one or more data contained in or generated in accordance with said one or more of a software module and a data module.	Page 486 lines 16-27.	...computes the value of Y that is specific the the station of Figs. 7 and 7F to be: 1071.32 (rounded in a fashion well known in the art); and stores 1071.32 information at particular 2nd working memory of said microcomputer, 205. Automatically, microcomputer, 205, clears video RAM; causes the background color of video RAM to be a color such as black that is transparent when combined with transmitted video by the PC-MicroKey System; causes binary image information of "$1,071.32" to be placed at bit locations of video RAM that produce video image information in the upper left hand of a video screen when video RAM information is transmitted to said screen.
	Page 493 line 33 to page 494 line 8.	At the station of Figs. 7 and 7F, microcomputer, 205, clears its audio RAM then determines, in the predetermined

		fashion of said program instruction set of Q.1, that the shopping list information at particular shopping- list memory at said station includes information of Patak's low-salt Vindaloo Curry Paste. So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.

3.   Claim 11

Claim Language	Spec. Reference	Specification Language
The method of claim 10, further having at least one step from the group consisting of:		
identifying a portion of said information transmission containing at least one of said one or more of a software module and a data module and said one or more instruct signals;	Page 481 lines 6-12.	...to commence identifying and processing the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q. In so doing, receiving said message causes decoder apparatus of the station of Figs. 7 and 7F to commence executing controlled functions in response to SPAM messages transmitted by said program originating studio.
	Page 482 line 32.	Receiving the specific data-module-set message (#10) of its intermediate transmission station...
	Page 484 lines 7-8.	Receiving the specific program-instruction-set message (#10) of its intermediate transmission station
initiating communications with at least one of said one or more remote stations in accordance with said one or more of a software module and a data module; and	Page 510 lines 15-30.	Receiving said information causes microcomputer, 205, under control of said program instruction set of Q.1, to access said D:DATA_OF.ITS file; to select information from said file of the aforementioned local-automatic-order-taking telephone number of the supermarket chain applicable in the vicinity of the intermediate transmission station of Fig. 6 which is 1-(800) 247-8700; to transmit to controller, 20, particular call-this-number-and-respond-with-"A:SHO PPING.EXE" instructions and information of

		1-(800) 247-8700; and to record particular instructions at the recording medium of the disk at the A: disk drive of microcomputer, 205, in a file named "SHOPPING.EXE". Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700.
performing at least some of said step of transferring said one or more second subscriber specific data in accordance with said software module.	Page 509 line 35 to line 510 line 4.	Subsequently, so continuing executing instructions of its specific program instruction set of Q.1 ... causes apparatus at each subscriber station where where TV568* has been inputted to a local input, 225, automatically to telephone a shopping list order.

4.   Claim 12

Claim Language	Spec. Reference	Specification Language
The method of claim 9, wherein said combined medium presentation displays a combined	Page 491 lines 10-23.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing. (Simultaneously and in the same fashion, apparatus at the station of said second subscriber causes the specific video RAM image information of said station, which is "$1,080.64", to be displayed at the upper left hand corner of the picture screen of the monitor, 202M, of said station and said subscriber can see the image said person pointing at $1,080.64.
or sequential output of video and a receiver specific datum,	Page 490 lines 15-22.	"For a limited time only, Super Discount Supermarkets make this special offer to you. Super Discount Supermarkets will deliver to you, at cost, all the pork you need to entertain five hundred people for this low, low price ___". Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand

| | Page 490 lines 20-22. | corner of the television screen.

Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen. |
| said method further comprising the step of receiving said video from said one or more remote stations. | Page 470 lines 9-13. | At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is retransmitted by the intermediate station of Fig. 6;... |

5.   Claim 13

Claim Language	Spec. Reference	Specification Language
The method of claim 9, wherein said combined medium presentation displays	Page 491 lines 10-23;	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing. (Simultaneously and in the same fashion, apparatus at the station of said second subscriber causes the specific video RAM image information of said station, which is "$1,080.64", to be displayed at the upper left hand corner of the picture screen of the monitor, 202M, of said station and said subscriber can see the image said person pointing at $1,080.64.
a combined	lines 30-35.	Said studio then transmits audio information of the announcer saying: "Super Discount Supermarkets makes this offer--today only--at cost, and this offer represents a saving to you of over."
or sequential output of a graphic and a receiver specific datum, said method further comprising the step of	Page 492 line 23 to page 493 line 5.	Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice

		saying: "forty-six". (Simultaneously, the microcomputer, 205, at the station of said second subscriber transmits to the monitor, 202M, of said station, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing emission of sound of said audio information, and said second subscriber can hear said announcer's voice saying: "forty-five".
receiving said graphic from said one or more remote stations.	Page 493 lines 16-21.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."
	Page 499 line 31 to page 500 line 4.	At the station of Figs. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 1st cease-outputting message (#10) causes decoder, 203, to execute "GRAPHICS OFF" at the PC-MicroKey System of microcomputer, 205. In so doing, decoder, 203, causes said PC-MicroKey to cease combining its specific image information with the conventional video information transmitted by said studio, to commence transmitting only the transmitted video information to monitor, 202M.

6.   Claim 14

Claim Language	Spec. Reference	Specification Language
The method of claim 9, wherein said combined medium presentation displays	Page 491 lines 10-23;	*See specification support for claim 13.*
a combined	lines 30-35.	*See specification support for claim 13.*
or sequential output of video or a graphic and a receiver specific datum, said method further comprising the steps of:	Page 492 line 23 to page 493 line 5.	*See specification support for claim 13.*

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receiving audio from said one or more remote stations;	Page 482 lines 32-34.	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information....
	Page 489 lines 30-33.	...selects the audio information of an announcer's voice saying "forty-three" from its file, D:DATA_OF.ITS; and places said information at said audio RAM.) As each subscriber station microcomputer, 205,....
outputting said audio as part of or to supplement said combined medium presentation.	Page 492 lines 23-30.	Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".

7. Claim 15

Claim Language	Spec. Reference	Specification Language
The method of claim 14, wherein said audio is received in a television signal, said method further having at least one step from the group consisting of:	Page 470 lines 14-21.	...to interconnect in such a way that the audio information received at a tuner, 215, and the video information received at said tuner, 215, are inputted separately, via matrix switch, 258, to monitor, 202M; ... and to display the television information of said transmission (that is, information of said audio and video) at monitor, 202M.
detecting said one or more instruct signals in said television signal or	Page 473 lines 14-15.	At the station of Figs. 7 and 7F, said message is detected at TV signal decoder, 145,
	Page 478 lines 23-26.	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television video and audio information of program unit Q.
	Page 480 lines 26-30.	After an interval that is sufficient to allow apparatus at each subscriber station so to combine and interconnect, said studio transmits said synch-SPAM-reception message (#10), embedded in the transmission of said programming.

	Page 481 lines 2-12.	Receiving said message at the station of Figs. 7 and 7F causes decoder, 203, to detect the end of file signal of said message and to process the next received SPAM information as information of the header of a SPAM message, thereby causing said decoder, 203, to commence identifying and processing the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q. In so doing, receiving said message causes decoder apparatus of the station of Figs. 7 and 7F to commence executing controlled functions in response to SPAM messages transmitted by said program originating studio.
	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
in an information transmission containing said television signal;	Page 470 lines 3-6;	Said transmission is received at the intermediate transmission station of Fig. 6 and retransmitted immediately on the cable channel of modulator, 83.
	with page 325 lines 1-4.	...apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
detecting in said television signal or in an information transmission containing said television signal,	Page 325 lines 1-4.	apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
	Page 484 lines 1-6.	Then said studio transmits said transmit-and-execute-program-instruction-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission

		station, to transmit its specific program-instruction-set message (#10), as described above.
a software or data module	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 483 lines 2-13.	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".
which operates to generate at least some of said combined medium presentation or serves as a basis for selecting video, audio, or text to output in	Page 485 lines 14-18.	Under control of the instructions of said program instruction set of Q.1, the microcomputer, 205, of Figs. 7 and 7F generates image information of a first video overlay and generates selected information of subsequent overlays in the following fashion.
	Page 486 lines 16-27.	computes the value of Y that is specific the the station of Figs. 7 and 7F to be: 1071.32 (rounded in a fashion well known in the art); and stores 1071.32 information at particular 2nd working memory of said microcomputer, 205. Automatically, microcomputer, 205, clears video RAM; causes the background color of video RAM to be a color such as black that is transparent when combined with transmitted video by the PC-MicroKey System; causes binary image information of "$1,071.32" to be placed at bit locations of video RAM that produce video image information in the upper left

		hand of a video screen when video RAM information is transmitted to said screen.
	Page 488 lines 21-27.	...microcomputer, 205, computes information of .4609 (rounded), which is the decimal equivalent of the percentage saving; determines that said information is greater than .4600 and less than .4700; and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS; and places said information at audio RAM.
	Page 501 lines 10-25.	So determining causes microcomputer, 205, to place "0" at particular Flag-interrupt register memory of said CPU that is normally "1" then to jump to a particular first-clear-and-continue address of the instructions of said program instruction set of Q.1 and to commence executing first-clear-and-continue instructions at said address. Automatically, under control of said instructions, microcomputer, 205, clears video RAM; sets the background color of video RAM to a transparent overlay black; determines that the aforementioned 1st working memory of said microcomputer, 205, holds southwest-quadrant information; selects from said D:DATA_OF.ITS file information of the aforementioned southwest delivery route telephone number, "456-1414", and causes binary image information of said number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.
	Page 16 lines 21-22.	Flexibility must exist for expanding the capacity of installed systems by means of transmitted software....
said combined medium presentation;	Page 491 lines 10-16;	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
	and lines 30-35.	Said studio then transmits audio information of the announcer saying: "Super Discount

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		Supermarkets makes this offer—today only—at cost, and this offer represents a saving to you of over."
	Page 492 lines 27-30.	and the subscriber of said station can hear said announcer's voice saying: "forty-six".
	Page 493 lines 16-21.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."
	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
detecting in said television signal or in an information transmission containing said television signal a second instruct signal which operates to initiate communications with at least one of said one or more remote stations; and	Page 481 lines 2-12.	Receiving said message at the station of Figs. 7 and 7F causes decoder, 203, to detect the end of file signal of said message and to process the next received SPAM information as information of the header of a SPAM message, thereby causing said decoder, 203, to commence identifying and processing the individual SPAM messages of the SPAM information subsequently embedded in the transmission of the programming of Q. In so doing, receiving said message causes decoder apparatus of the station of Figs. 7 and 7F to commence executing controlled functions in response to SPAM messages transmitted by said program originating studio.
	Page 483 lines 2-13.	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".

	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 510 lines 15-30.	Receiving said information causes microcomputer, 205, under control of said program instruction set of Q.1, to access said D:DATA_OF.ITS file; to select information from said file of the aforementioned local-automatic-order-taking telephone number of the supermarket chain applicable in the vicinity of the intermediate transmission station of Fig. 6 which is 1-(800) 247-8700; to transmit to controller, 20, particular call-this-number-and-respond-with-"A:SHO PPING.EXE" instructions and information of 1-(800) 247-8700; and to record particular instructions at the recording medium of the disk at the A: disk drive of microcomputer, 205, in a file named "SHOPPING.EXE". Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700.
selecting said television signal from a multichannel broadcast or cablecast information transmission.	Page 470 lines 9-21.	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is retransmitted by the intermediate station of Fig. 6; to interconnect in such a way that the audio information received at a tuner, 215, and the video information received at said tuner, 215, are inputted separately, via matrix switch, 258, to monitor, 202M; to retain and process meter and monitor information of the use and usage of the information of said transmission, and to display the television information of said transmission (that is, information of said audio and video) at monitor, 202M.
	Page 324 lines 7-21	AUTOMATING INTERMEDIATE

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| | | TRANSMISSION STATIONS   The signal processing apparatus outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming, including television, radio, print, data, and combined medium programming and may range in scale of operation from wireless broadcast stations that transmit a single programming transmission to cable systems that cablecast many channels simultaneously. Fig. 6 illustrates Signal Processing Apparatus and Methods at an intermediate transmission station that is a cable television system "head end" and that cablecasts several channels of television programming. |
| | Page 538 line 31 to page 539 line 19. | Automatically each ultimate receiver station that is equipped with a satellite earth station, 250, commences transferring received information of said master transmission, via its matrix switch, 258, to its divider, 4, (thereby inputting said received information to its computer, 205, and its decoder, 203) and commences transferring the television output information of its microcomputer, 205, to its television monitor, 202M, thereby causing display and emission of the television images and sound of said output information. Automatically each receiver station that is not equipped with a satellite earth station tunes its tuner, 215, to receive the specific master channel transmission of its specific selected local intermediate transmission station (which retransmits the master transmission of said European European master network station on its master channel transmission) and commences transferring received information of said master channel transmission, via its matrix switch, 258, to its divider, 4, (thereby inputting said received information to its computer, 205, and its decoder, 203) and commences transferring the television output information of its microcomputer, 205, to its television monitor, 202M, thereby causing display and emission of the television images and sound of said output information. |

8.   Claim 16

Claim 16 is directed to the operation of a transmitter station which transmits the control signal to the viewer station of claim 9. The transmitter station receives an information transmission (e.g., a television signal) which contains the television programming. It generates the control signal containing the instructions which cause the viewer station to function in the manner of claim 9. It transmits the information transmission and the control signal to the viewer station.

With regard to the functioning of the transmitter station, support for claim 16 is found at pages 374-390 of the specification. With regard to the functionality of the receiver station, support is found at pages 468-516. (As explained above in section A the correspondence between these two passages is clear through the use of a narrative sequence in each passage which uses carefully defined message names and processing functions associated with more than thirteen messages.) Claim 16 is also independently supported at pages 354-374 although not shown in the table below.

Claim Language	Spec. Reference	Specification Language
A method of communicating subscriber station information	Page 511 lines 3-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
from a subscriber station	Page 469 lines 7-10.	The microcomputer, 205, of the station of Fig. 7 and 7F, is preprogrammed to receive and process automatically meal recipe instructions and holds records of the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family.

to one or more remote stations, comprising the steps of:	Page 511 line 5.	...to said computer at a remote station....
receiving an information transmission	Page 375 lines 4-6.	The station of Fig. 6 receives said network transmission at receiver, 53, and retransmits said transmission immediately via modulator, 83.
at a transmission station;	Page 375 lines 3-4.	The station of Fig. 6 is one intermediate transmission station controlled by said studio.
generating one or more instruct signals at said transmission station,	Page 379 lines 17-31.	...to select, compute, and replace other variable information until complete program instruction set information exists in higher language code at particular memory; to compile said higher language information; to link the information so complied with other compiled information; and to record the information so computed, compiled, and linked (which is complete information the program instruction set of Q of the station of Fig. 6) in a file named "PROGRAM.EXE", in a fashion well known in the art, on a computer memory disk of computer, 73. In so doing, said computer, 73, generates the specific program instruction set version--that is, the program instruction set of Q.1--that applies to the particular discounts and specials in effect at the particular markets in the vicinity of said station and at the particular time of the network transmission of Q.
	Page 24 lines 14-16.	(Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")
	Page 383 lines 25-34.	Receiving said transmit-data- module-set message (#10) causes each of said computers, 73, to cause stripping and embedding to commence; to generate a particular first outbound SPAM message that includes information of the data file, DATA_OF.ITS, at its data-set- to-transmit RAM memory; and to cause said message to be transmitted to its field distribution system, 93. and to cause said message to be transmitted to its field distribution system, 93. (Hereinafter, the first outbound SPAM message of any given one of said computers, 73, is called a "data-module-set message (#10)"...
	Page 385 line 24 to	Then, automatically, each of said computers,

	page 386 line 3.	73, selects and transmits to the generator, 82, of its station, information of a "01" header; information of a particular SPAM execution segment that is addressed to URS microcomputers, 205; its retained meter-monitor information; any required padding bits; complete information of the program instruction set that is at its program-set-to transmit RAM memory; and information of a SPAM end of file signal. Said selected and transmitted information that each of said computers, 73, transmits is complete information of the particular program- instruction-set message (#10) of said computer, 73. (Receiving said message causes the apparatus of the intermediate station of Fig. 6 to transmit the program instruction set of Q.1 in the program-instruction-set message (#10) of said station....
said one or more instruct signals effective to cause said subscriber station	Page 482 lines 27-31.	Then said studio transmits said transmit-data-module- set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific data-module-set message (#10), as described above.
	Page 483 lines 2-13.	At the station of Figs. 7 and 7F, receiving the data-module-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which includes complete information of the aforementioned data file, DATA_OF.ITS, of said station). Executing said information causes microcomputer, 205, to place said complete information at a so-called "D:" RAM disk at the RAM of said microcomputer, 205, in a file entitled, at the directory of said disk, "DATA_OF.ITS".
	Page 484 lines 1-6.	Then said studio transmits said transmit-and-execute- program-instruction-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific

		program-instruction-set message (#10), as described above.
to generate **one or more subscriber specific data in** accordance with said one or more instruct signals	Page 510 line 15-17.	Receiving said information causes microcomputer, 205, under control of said program instruction set of Q.1, to access said D:DATA_OF.ITS file;...
	Page 511 line 9.	...A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
and transfer said one or more subscriber specific data to said one or more remote stations	Page 511 lines 4-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
based on a **subscriber response**	Page 508 lines 29-30.	At the station of Figs. 7 and 7F, the subscriber enters TV568* at the keyboard of local input, 225,....
	Page 509 line 35 to page 510 line 4.	Subsequently, so continuing executing instructions of its specific program instruction set of Q.1 or Q.2 causes apparatus at each subscriber station where where TV568* has been inputted to a local input, 225, automatically to telephone a shopping list order.
to a combined **medium presentation** output at an output device at said subscriber station,	Page 507 lines 12-21.	Said studio then transmits audio information of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568*" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's".
	Page 507 line 33 to page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio

		transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source	Page 505 lines 25-30.	studio transmits audio information of the announcer saying: "Curry Paste. Your local Super Discount Supermarket has a complete line of Patak's Curry Paste products in stock. Call the telephone number,"
and (ii) a datum computed at said subscriber station in response to said one or more instruct signals; and	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.

	Page 506 line 32 through page 507 line 21.	Said studio then transmits audio information of the announcer saying,
		      "that you see on your screen to have your order delivered to your door. Or if you enter on your Widget Signal Generator and Local Input the information that you see here on your screen,"
		      Said studio transmits video information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner. Thus each viewer—including the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber— can see TV568* in the upper·left hand corner of the picture on the monitor, 202M, of his station.
		      Said studio then transmits audio information of the announcer saying,
		      "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter 'TV568*' on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"

	Page 507 line 33 through page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying:

		"low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
transmitting said information transmission and said one or more instruct signals from said transmission station to said subscriber station.	Page 375 lines 4-6.	The station of Fig. 6 receives said network transmission at receiver, 53, and retransmits said transmission immediately via modulator, 83.
	Page 384 line 30 to page 385 line 2.	Receiving the information of the particular data- module-set message (#10) of the computer, 73, of its station causes each generator, 82, to embed said information in the normal transmission location of the programming of Q transmission being transmitted via said generator, 82, to the field distribution system, 93, of said station, thereby transmitting the particular data-module-set message (#10) of said station to said system, 93.
	Page 386 lines 7-14.	Receiving the information of the particular program- instruction-set message (#10) of the computer, 73, of its station causes a generator, 82, to embed said information in the normal transmission location of the programming of Q transmission being transmitted via said generator, 82, to the field distribution system, 93, of said station, thereby transmitting the particular program-instruction-set message (#10) of said station to said system, 93.
	Page 469 line 35 to page 470 line 6.	The program originating studio of a particular network transmits the programming transmission of a particular conventional television program on cooking techniques that is called "Exotic Meals of India." Said transmission is received at the intermediate transmission station of Fig. 6 and retransmitted immediately on the cable channel of modulator, 83.
	Page 482 lines 27-31.	Then said studio transmits said transmit-data-module- set message (#10), causing each intermediate transmission

		station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific data-module-set message (#10), as described above.
	Page 484 lines 1-6.	Then said studio transmits said transmit-and-execute-program-instruction-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific program-instruction-set message (#10), as described above.

9. Claim 17

Claim 17 is directed to the operation of a satellite uplink (and satellite) which transmit to the transmitter station of claim 16. The uplink receives an information transmission (e.g., a television signal) which contains the television programming to be transmitted from the transmitter station. It receives instructions (e.g., a computer program) addressed to the transmitter station which cause a series of transmitter stations (which are also receiver stations) to generate the control signals of claim 16. It receives instructions addressed to the viewer station (e.g., to cause output of video and audio). It also receives a transmitter control signal (e.g., a series of cueing signals) which controls the series of transmitter stations to transmit control signals and the instructions addressed to the viewer station. The uplink transmits the information transmission (e.g., the television signal), the instructions addressed to the series of transmitter stations (as well as the instructions addressed to the viewer station), and the transmitter control signal (e.g., the cueing signals).

Claim 17 finds support at pages 533-556 of the specification.

Claim Language	Spec. Reference	Specification Language
A method of communicating	Page 555 lines 26-29.	...to transmit the information of his "PLANTING.DAT" file, via telephone

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subscriber station information		network in the fashion of example #10, to a computer at a particular remote data collection station.
from a subscriber station	Page 534 lines 1-4.	Each farmer has a subscriber station that is identical to the station of Fig. 7
to one or more remote stations, comprising the steps of:	Page 555 line 28 to page 556 line 11.	...a computer at a particular remote data collection station. Over the course of a particular time such as two days, ... the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows .... The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations, enabling ....
receiving, at a first transmission station,	Page 536 lines 4-6.	... programming transmitted via satellite by a particular European master network origination and control station....:
	Page 536 lines 12-17.	the signal processor of each receiver station in the nations of the European Economic Community - -including each national and each local intermediate transmission station and each ultimate receiver station of a farmer—commences receiving information of the particular master transmission of said European master network station.
an information transmission to be transmitted;	Page 536 lines 29-35.	Then the controller, 20, of the signal processor of the signal processor system, 71, of each intermediate transmission station (of Fig. 6) in said nations causes the computer, 73, of said station to cause apparatus of said station also to retransmit information of said master transmission on the frequency of a selected master channel transmission.
receiving a first instruct signal which is effective to accomplish one of:	Page 536 lines 4-6.	... programming transmitted via satellite by a particular European master network origination and control station ....
	Page 536 lines 12-17.	At 3:00 AM Greenwich Mean Time on Monday, February 15, 2027, the signal processor of each receiver station in the nations of the European Economic Community—including each national and each local intermediate transmission station and each ultimate receiver station of a farmer—commences receiving information of the particular master transmission of said

		European master network station.
	Page 541 line 29 to page 542 line 2.	Next said European master network station transmits in the full frame video of said master transmission a SPAM message that is addressed to ITS computers, 73, of intermediate stations that are national stations and that contains information segment information of a particular national level intermediate generation set. Receiving said message causes each national intermediate transmission station to input to and execute at its computer, 73, the information of said set.
	Page 42 lines 8-11.	(Hereinafter, instances of computer program information that cause intermediate transmission station apparatus to generate program instruction set information and/or command information are called "intermediate generation sets.")
(a) effecting a second transmission station	Page 535 lines 18-22.	Each local government has a local intermediate transmission station that is identical to the intermediate station of Fig. 6 and that transmits multiplexed output information of several separate television channels via a cable field distribution system.
to generate one or more second instruct signals,	Page 545 lines 27-28.	Automatically, each computer, 73, of a local intermediate station incorporates its computed information selectively into selected generally applicable information of said local level intermediate generation set, compiles information, and links information, thereby generating its specific program instruction set.
said one or more second instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more second instruct signals	Page 547 lines 19-26.	In the fashion of example #9, each local intermediate station detects the particular SPAM message of its recorder, 76, at its decoder, 77, and receiving its particular message causes each station to embed and transmit end of file signal information then a particular first SPAM message that is addressed to URS microcomputers, 205, and that contains complete information of its particular program instruction set.
	Page 548 lines 1-6;	Receiving the particular first SPAM message of its local intermediate station causes apparatus of the subscriber station of each farmer to execute the contained program

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		instruction set of said message at the microcomputer, 205, of said station and to commence generating the specific combined medium output information of its subscriber station.
	and lines 18-22.	So executing a specific contained program instruction set causes each microcomputer, 205, to generate a specific so-called "optimal" solution for its particular farmer's problem of deciding what mix of crops is most profitable to grow on his property, given his resources.
	Page 549 line 33 through page 550 line 2.	... each farmer's microcomputer, 205, under control of the particular program instruction set generated and transmitted by its local intermediate station, computes its particular farmer's "optimal" crop planting plan by making reference to said farmer's specific data ...
	Page 551 lines 11-14	Automatically, under control of its received program instruction set, the microcomputer, 205, of its farmer's station records complete information of said farmer's crop planting plan at its A: disk in a file named PLANTING.DAT.
	Page 554 lines 12-21.	In due course, the instructions of the program instruction set received at each farmer's station cause a particular module, TELEPHON.EXE, to be recorded at a particular disk drive of the microcomputer, 205, of each farmer's station (in the fashion of the file, "SHOPPING.EXE" in example #10) which, when executed, will permit the farmer to modify the information of his specific crop planting plan and associated budget and to transmit the specific information of his plan (as modified if modified) to a particular data collection computer at a remote station.
and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response	Page 555 lines 19-26.	Under control of the instructions of the TELEPHON.EXE module of his station controlling the operation of his signal processor, 200, each farmer enters information at his local input, 225, that modifies the information of his file, "PLANTING.DAT," to suit his own wishes and inclinations then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit

		the information
to a combined medium presentation outputted at an output device at said subscriber station,	Page 555 line 2-17.	Playing each commercial spot causes the combined medium information of said spot to display information of a particular commercial product such as a truck or a particular service such as a software package; to access the prerecorded "A:PLANTING.DAT" disk file information of a farmer's crop planting plan; in a fashion well known in the art, to generate cost/benefit financial analysis of the incremental benefit of acquiring and using the displayed product or service (by comparison with the farmer's existing product or service of like kind); and to display (or otherwise output) information of said analysis (if said analysis results in a positive net present benefit). After studying his specific crop planting plan and associated budget projections, his associated sensitivity analyses, and the output information of the selected commercial spots of his station,....
said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more instruct signals; and	Page 552 lines 14-30.	Receiving the further additional SPAM messages of its local intermediate station causes apparatus at each subscriber station of a farmer to display or otherwise output (or to cease displaying or otherwise outputting) further combined medium programming of said national and local segment of the "Farm Plans of Europe" program. Automatically, in the fashion of example #10, the display and output apparatus of each farmer's station commences displaying and outputting generally applicable television picture image, sound, and print information of a crop planting plan combined periodically with related locally generated specific crop planting plan information of its specific farmer. Automatically, crop and budget information of the aforementioned optimal crop planting plan of each farmer is explained in the outputted the generally applicable programming and is displayed, emitted in sound, and printed at the station of each farmer.
(b) effecting a receiver station	Page 534 lines 26-31.	Elsewhere and at the same time, national planners of each member nation of the European Economic Community seek to formulate agricultural policy for the 2027 growing season and to communicate information of that policy to farmers, thereby

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		influencing the farmers' decisions regarding which crops to plant. Each nation has a national intermediate transmission station that is identical to the intermediate station of Fig. 6 except that it transmits output information of several individual television channels to receiver stations via a satellite in geosynchronous orbit over Europe rather than via a cable field distribution system.
	Page 324 lines 18-31.	Fig. 6 illustrates Signal Processing Apparatus and Methods at an intermediate transmission station that is a cable television system "head end" and that cablecasts several channels of television programming. The means and methods for transmitting conventional programming are well known in the art. The station receives programming from many sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic programming transmissions are received by other programming input means, 62.
to generate one or more second instruct signals,	Page 543 lines 20-29.	In the mean time, executing their inputted information of said national level intermediate generation set causes the computers, 73, of said national intermediate stations each to generate information of a specific local level intermediate generation set in the fashion that receiving the intermediate generation set of Q caused different intermediate stations to compute and incorporate specific formula-and-item-of-this- transmission information into generally applicable information of the program instruction sets of Q.1 and Q.2 in example #10.
	Page 545 lines 3-11.	Receiving the specific SPAM message of its national intermediate station causes the computer, 73, of each local intermediate station to execute the contained local level intermediate generation set of said message and to generate information of a specific program instruction set in the fashion that

		executing the intermediate generation set of Q caused different intermediate stations in example #10 to generate their specific program instruction sets of Q.1 or Q.2.
said one or more second instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more second instruct signals	Page 547 lines 19-26. Page 548 lines 1-6, and lines 18-22. Page 549 line 33 through page 550 line 2.	*See above.* *See above.* *See above.* *See above.*
and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response	Page 554 lines 12-21. Page 551 lines 11-14. Page 555 lines 19-16.	*See above.* *See above.* *See above.*
to a combined medium presentation outputted at an output device at said subscriber station,	Page 555 lines 2-17.	*See above.*
said combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more instruct signals;	Page 552 lines 14-30.	*See above.*
receiving a transmitter control signal which operates to communicate at least one of	Page 536 lines 4-6. Page 59 lines 29-33. Page 539 line 34 to	... programming transmitted via satellite by a particular European master network origination and control station..... A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages. At 3:59:55 PM, GMT, said European master

	page 540 line 13.	network station transmits end of file signal information then invokes broadcast control of each national intermediate transmission station computer, 73, and each ultimate receiver station microcomputer, 205, that receives SPAM information of said master transmission. Automatically said European master network station commences controlling directly the computers, 73, of said national intermediate stations and the microcomputers, 205, of said ultimate receiver stations. And said master station causes each national intermediate station computer, 73, to embed in its particular second television channel transmission and to transmit end of file signal information then to invoke broadcast control of the computers, 73, of its specific local intermediate transmission stations.
	Page 541 line 29 to page 542 line 6.	Next said European master network station transmits in the full frame video of said master transmission a SPAM message that is addressed to ITS computers, 73, of intermediate stations that are national stations and that contains information segment information of a particular national level intermediate generation set. Receiving said message causes each national intermediate transmission station to input to and execute at its computer, 73, the information of said set. (The information of said set and the processing and functioning caused by executing said information are described more fully below.) Said European master network station then transmits a series of SPAM messages....
said first	Page 544 line 23 to page 545 line 2.	After an interval of time that is long enough for each national intermediate generation station to generate its specific local level intermediate generation set, said European master network station embeds and transmits a SPAM message that is addressed to ITS, computers, 73, of intermediate stations that are national stations and that instructs said stations to embed and transmit their specific local intermediate sets. Receiving said message causes the computer, 73, of each national intermediate station to embed in the normal location of its particular second television channel transmission and
	(first instruct signal)	to transmit a particular SPAM message that

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		is addressed to ITS computers, 73, and that contains information segment information of its specific local level intermediate generation set.
	Page 544 lines 25-32.	...said European master network station embeds and transmits a SPAM message that is addressed to ITS, computers, 73, of intermediate stations that are national stations and that instructs said stations to embed and transmit their specific local intermediate sets.
	Page 545 line 29 to page 546 line 5.	At 4:29:50 PM, GMT, after an interval of time that is long enough for each local intermediate generation station to generate its specific program instruction set, said European master network station transmits a particular SPAM first- master-cueing message (#11) that is addressed to ITS computers, 73, of intermediate stations that are national stations. Receiving said message causes each national intermediate station to generate and embed in the normal location of its particular second television channel transmission a particular SPAM first-national-cueing message (#11) that is addressed to ITS computers, 73, of intermediate stations that are local stations.
and second instruct signals to a transmitter; and	Page 547 lines 19-26.	In the fashion of example #9, each local intermediate station detects the particular SPAM message of its recorder, 76, at its decoder, 77, and receiving its particular message causes each station to embed and transmit end of file signal information then a particular first SPAM message that is addressed to URS microcomputers, 205, and that contains complete information of its particular program instruction set.
transmitting, from said first transmission station, said information transmission and said first instruct signal, wherein said information transmission and said first instruct signal are transmitted from said first transmission station.	Page 536 lines 4-6.	...programming transmitted via satellite by a particular European master network origination and control station....
	Page 539 line 34 to page 540 line 13.	At 3:59:55 PM, GMT, said European master network station transmits end of file signal information then invokes broadcast control of each national intermediate transmission station computer, 73, and each ultimate receiver station microcomputer, 205, that receives SPAM information of said master transmission. Automatically said European master network station commences

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		controlling directly the computers, 73, of said national intermediate stations and the microcomputers, 205, of said ultimate receiver stations. And said master station causes each national intermediate station computer, 73, to embed in its particular second television channel transmission and to transmit end of file signal information then to invoke broadcast control of the computers, 73, of its specific local intermediate transmission stations.
	Page 59 lines 29-33.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
(i) in response to said transmitter control signal, or	Page 539 line 34 to page 540 line 13.	At 3:59:55 PM, GMT, said European master network station transmits end of file signal information then invokes broadcast control of each national intermediate transmission station computer, 73, and each ultimate receiver station microcomputer, 205, that receives SPAM information of said master transmission. Automatically said European master network station commences controlling directly the computers, 73, of said national intermediate stations and the microcomputers, 205, of said ultimate receiver stations. And said master station causes each national intermediate station computer, 73, to embed in its particular second television channel transmission and to transmit end of file signal information then to invoke broadcast control of the computers, 73, of its specific local intermediate transmission stations.
	Page 544 lines 23 to page 545 line 2.	After an interval of time that is long enough for each national intermediate generation station to generate its specific local level intermediate generation set, said European master network station embeds and transmits a SPAM message that is addressed to ITS, computers, 73, of intermediate stations that are national stations and that instructs said stations to embed and transmit their specific local intermediate sets.
		Receiving said message causes the computer,

		73, of each national intermediate station to embed in the normal location of its particular second television channel transmission and to transmit a particular SPAM message that is addressed to ITS computers, 73, and that contains information segment information of its specific local level intermediate generation set.
(ii) with said transmitter control signal.	Page 541 lines 29 to page 542 line 4.	Next said European master network station transmits in the full frame video of said master transmission a SPAM message that is addressed to ITS computers, 73, of intermediate stations that are national stations and that contains information segment information of a particular national level intermediate generation set. Receiving said message causes each national intermediate transmission station to input to and execute at its computer, 73, the information of said set. (The information of said set and the processing and functioning caused by executing said information are described more fully below.)

10.   Claim 18

Claim Language	Spec. Reference	Specification Language
The method of claim 17, wherein one of said second transmission station and said receiver station is an intermediate transmission station, said method further comprising the step of	Page 535 lines 18-22.	Each local government has a local intermediate transmission station that is identical to the intermediate station of Fig. 6 and that transmits multiplexed output information of several separate television channels via a cable field distribution system.
transmitting said one or more second instruct signals from said intermediate transmission station based on said transmitter control signal.	Page 545 line 20 to page 546 line 11.	At 4:29:50 PM, GMT, after an interval of time that is long enough for each local intermediate generation station to generate its specific program instruction set, said European master network station transmits a particular SPAM first- master-cueing message (#11) that is addressed to ITS computers, 73, of intermediate stations that are national stations. Receiving said message causes each national intermediate

		station to generate and embed in the normal location of its particular second television channel transmission a particular SPAM first-national-cueing message (#11) that is addressed to ITS computers, 73, of intermediate stations that are local stations. Receiving said message causes each local intermediate station to commence playing prerecorded programming loaded at its recorder, 76, and transmitting said programming to its field distribution system, 93, on the television channel transmission that is the master channel transmission of said intermediate station.

11.   Claim 19

Claim Language	Spec. Reference	Specification Language
The method of claim 17, wherein one of said second transmission station and said receiver station is said subscriber station, said method further comprising the step of	Page 534 lines 1-4.	Each farmer has a subscriber station that is identical to the station of Fig. 7 except that each station has two television recorder/players that are recorder/players, 217 and 217A;....
communicating said one or more subscriber specific data to said transmitter in response to said transmitter control signal.	Page 554 lines 12-16.	In due course, the instructions of the program instruction set received at each farmer's station cause a particular module, TELEPHON.EXE, to be recorded at a particular disk drive of the microcomputer, 205, of each farmer's station....
	Page 555 lines 24 to page 556 line 9.	then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station. Over the course of a particular time such as two days, computers at remote data collection stations receive data automatically from each farmer of said nations which data indicates the specific quantity of each crop that each farmer expects to harvest during

		the 2027 growing season. Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station which allows planners at said station to modify and refine the variables of the national intermediate generation set of said station, especially the projected market prices at which farmers are projected to be able to sell each alternate crop. The aggregated data is also distributed automatically to computers at the national and local intermediate transmission stations,....
	Page 545 lines 29 to page 546 line 11. Page 547 lines 19-26.	*See above.* In the fashion of example #9, each local intermediate station detects the particular SPAM message of its recorder, 76, at its decoder, 77, and receiving its particular message causes each station to embed and transmit end of file signal information then a particular first SPAM message that is addressed to URS microcomputers, 205, and that contains complete information of its particular program instruction set.

12. Claim 20

Claim Language	Spec. Reference	Specification Language
The method of claim 19, wherein said one or more remote stations include an aggregation station, said method further comprising the steps of:	Page 555 line 35 to page 556 line 2.	Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station ....
receiving said one or more subscriber specific data at said aggregation station; and	Page 555 lines 24- line 556 line 2.	then executes particular information of said TELEPHON.EXE module that causes the instructions of said module to cause his signal processor, 200, to transmit the information of his "PLANTING.DAT" file, via telephone network in the fashion of example #10, to a computer at a particular remote data collection station. Over the course of a particular time such as two days, computers at remote data

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		collection stations receive data automatically from each farmer of said nations which data indicates the specific quantity of each crop that each farmer expects to harvest during the 2027 growing season. Automatically, the received data is aggregated, in a fashion well known in the art, at the computer of said European master network origination and control station....
aggregating said one or more subscriber specific data with information received from other subscriber stations based on said at least one of said first and second instruct signals.	Page 555 lines 24- line 556 line 2.	*See above.*

13.   Claim 21

Claim Language	Spec. Reference	Specification Language
The method of claim 16, wherein said information transmission includes a television or multichannel signal	Page 324 lines 18-21.	Fig. 6 illustrates Signal Processing Apparatus and Methods at an intermediate transmission station that is a cable television system "head end" and that cablecasts several channels of television programming.
	Page 325 lines 1-4.	...apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
containing a code portion,	Page 54 lines 2-6.	An information segment can transmit any information that a processor can process. It can transmit compiled machine language code or assembly language code or higher level language programs, all of which are well known in the art.
	Page 85 lines 23-29.	In television, the normal transmission location of the preferred embodiment is in the vertical interval of each frame of the television video transmission. Said location begins at the first detectable part of line 20 of the vertical interval and continues to the last

		detectable part of the last line of the vertical interval that is not visible on a normally tuned television set.
said method further comprising the step of embedding at least one of said one or more instruct signals in said code portion.	Page 385 lines 24-34.	Then, automatically, each of said computers, 73, selects and transmits to the generator, 82, of its station, information of a "01" header; information of a particular SPAM execution segment that is addressed to URS microcomputers, 205; its retained meter-monitor information; any required padding bits; complete information of the program instruction set that is at its program-set-to transmit RAM memory; and information of a SPAM end of file signal. Said selected and transmitted information that each of said computers, 73, transmits is complete information of the particular program- instruction-set message (#10) of said computer, 73.
	Page 386 lines 7-14.	Receiving the information of the particular program- instruction-set message (#10) of the computer, 73, of its station causes a generator, 82, to embed said information in the normal transmission location of the programming of Q transmission being transmitted via said generator, 82, to the field distribution system, 93, of said station, thereby transmitting the particular program-instruction-set message (#10) of said station to said system, 93.

14. Claim 22

Claim Language	Spec. Reference	Specification Language
The method of claim 16, further comprising the step of transmitting a control signal	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
which operates at said subscriber station to control a portion receiver	Page 460 lines 12-19.	Then said studio embeds a SPAM message that contains one instance of said expand-to-full-field-search execution segment information. Receiving said message causes apparatus at each station to cause the line receiver, 33, of the decoder, 203, of said station to commence detecting

		digital information in every frame of its received video information from the first detectable portion of line 20 of said frame to the last detectable portion of the last line of said frame.
	Page 462 lines 6-12.	Then said studio embeds a SPAM message that contains one instance of said resume-normal-location-search execution segment information. Receiving said message causes apparatus at each station to cause the line receiver, 33, of the decoder, 203, of said station to commence detecting digital information in just the normal transmission location of every frame of its received video information.
to receive and transfer to a detector	Page 35 lines 6-12.	Path A inputs to a standard line receiver, 33, well known in the art. Said line receiver, 33, receives the information of one or more of the lines normally used to define a television picture. It receives the information only of that portion or portions of the overall video transmission and passes said information to a digital detector, 34,....
an expanded or contracted code portion	Page 459 lines 17-26.	The decoder, 203, of the station of Fig. 7 and 7C (and the decoder, 203, of every other subscriber station tuned to said program) is preprogrammed to respond to SPAM messages containing expand-to-full-field-search execution segment information and resume-normal-location-search information and responsively to alter automatically the portions of its received video information that are searched for embedded digital information. At the start of the conventional television information of said program, said program originating studio embeds a SPAM message that contains the execution segment information....
	Page 458 lines 18-35.	One controlled function that is preprogrammed at the controllers, 39, of the decoders, 203, of subscriber stations and that is caused to be executed by receiving a SPAM message containing expand-to-full-field-search execution segment information is a function whose instructions cause said controller, 39, to cause the line receivers, 33, of said decoders, 203, to

Claim Language	Spec. Reference	Specification Language
		commence detecting digital information in every frame of its received video information from the first detectable portion of line 20 of said frame to the last detectable portion of the last line of said frame. A second controlled function that is preprogrammed at said controllers, 39, and that is caused to be executed by receiving a SPAM message containing resume- normal-location-search execution segment information is a function whose instructions cause said controller, 39, to cause said line receivers, 33, to commence detecting digital information in the normal transmission location of every frame of its received video information.
	Page 85 lines 23-29.	In television, the normal transmission location of the preferred embodiment is in the vertical interval of each frame of the television video transmission. Said location begins at the first detectable part of line 20 of the vertical interval and continues to the last detectable part of the last line of the vertical interval that is not visible on a normally tuned television set.
of a television signal or a multichannel broadcast or cablecast signal.	Page 324 lines 18-21.	Fig. 6 illustrates Signal Processing Apparatus and Methods at an intermediate transmission station that is a cable television system "head end" and that cablecasts several channels of television programming.
	Page 325 lines 1-4.	...apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.

15. Claim 23

Claim Language	Spec. Reference	Specification Language
The method of claim 16, wherein a switch or computer	Page 324 line 3 to page 325 line 4.	Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire to a a conventional matrix switch, 75, well known in the art, that outputs to one or more recorder/players, 76 and 78, and/or to

		apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
	Page 326 lines 19-20.	Cable program controller and computer, 73, is the central automatic control unit for the transmission station.
	Page 328 lines 14-17.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78, and can cause selected programming to be transmitted to field distribution system, 93, or recorded.
at said transmission station communicates said information transmission from one or more of a receiver and a memory	Page 375 lines 3-6.	The station of Fig. 6 is one intermediate transmission station controlled by said studio. The station of Fig. 6 receives said network transmission at receiver, 53, and retransmits said transmission immediately via modulator, 83.
	Page 367 lines 25-27.	Causing recorder, 76, to play causes recorder, 76, to transmit programming of Q, via matrix switch, 75, and modulator, 83, to field distribution system, 93, and also causes recorder, 76, to input the programming of Q to decoder, 77.
to a transmitter, said method further comprising the steps of:	Page 325 lines 1-4.	...apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
detecting a signal	Page 366 lines 29-33,	Transmitting said message causes that decoder of signal processing system, 71, that receives the transmission of said distribution amplifier, 63, to detect said message and input said message, with appropriate source mark information, via code reader, 72, to computer, 73.
	with page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
which operates at said transmission station to	Page 367 lines 2-9.	Receiving said message and mark causes computer, 73, to cause recorder, 76, to

instruct said switch or computer to effect communication;		commence playing and to cause matrix switch, 75, to configure its switches so as to cease transferring programming inputted from distribution amplifier, 63, to modulator, 83, then to commence transferring the output of recorder, 76, to modulator, 83, which causes the transmission of unit Q to field distribution system, 93.
controlling said switch or computer to communicate at least one of said one or more instruct signals to said transmitter; and	Page 367 lines 3-9.	Receiving said message and mark causes computer, 73, to cause recorder, 76, to commence playing and to cause matrix switch, 75, to configure its switches so as to cease transferring programming inputted from distribution amplifier, 63, to modulator, 83, then to commence transferring the output of recorder, 76, to modulator, 83, which causes the transmission of unit Q to field distribution system, 93.
	Page 372 lines 20-26.	Subsequently, as recorder, 76, plays and transmits the programming of Q, via modulator, 83, to field distribution system, 93, recorder, 76, transmits eight SPAM messages that are embedded in the prerecorded programming of Q. (Hereinafter, said messages are called [in the order in which said messages are transmitted], the "1st commence-outputting message (#9)", the "2nd commence-outputting message (#9)",.....
controlling said switch or computer to communicate mass medium programming from one of said receiver and said memory.	Page 344 lines 5-7,	Automatically, at the station of Fig. 6, the computer, 73, causes matrix switch, 75, to configure its switches so as to transfer transmissions from receiver, 53, to a selected primary recorder, 76;
	Page 340 lines 33-34.	Said programming might be, for example, so-called "television spot commercials."
	with page 346 line 34 to page 347 line 5.	Subsequently, receiving the select-Q-message (#8) causes said computer, 73, to determine that the "program unit identification code" information of unit Q matches preprogrammed schedule information which causes said computer, 73, to cause recorder, 76, to commence recording, thereby causing said recorder, 76, to record the programming of program unit Q which follows said select-Q-message (#8).
	Page 367 line 2-9.	Receiving said message and mark causes computer, 73, to cause recorder, 76, to commence playing and to cause matrix

		switch, 75, to configure its switches so as to cease transferring programming inputted from distribution amplifier, 63, to modulator, 83, then to commence transferring the output of recorder, 76, to modulator, 83, which causes the transmission of unit Q to field distribution system, 93.

16.   Claim 24

Claim Language	Spec. Reference	Specification Language
The method of claim 16, wherein a programmable controller	Page 359 lines 14-20.	Detecting said message causes decoder, 77, to transmit said message to computer, 73, and receiving said message at computer, 73, causes particular SPAM decoder apparatus of computer, 73, (which apparatus is analogous to SPAM- controller, 205C, at microcomputer, 205, above and is not distinguished from computer, 73, hereinafter) to execute particular controlled functions.
	Fig. 3, page 156 lines 10-17.	THE PREFERRED CONFIGURATION OF CONTROLLER, 39, AND SPAM-CONTROLLER, 205C. Heretofore, this specification has treated the controller of decoder, 203, (which is controller, 39) and the SPAM input controller of microcomputer, 205, (which is SPAM- controller, 205C) as separate controllers. This treatment has served to show how SPAM messages are transferred from one controller to another, at any given subscriber station.
	Page 157 line 34 to page 158 line 35.	As Fig. 3A shows, each processor, 39B, 39D, and 39J, has associated RAM and ROM and, hence, constitutes a programmable controller in its own right. Each processor, 39B, 39D, and 39J, controls its associated buffer, 39A, 39C, and 39E respectively. Each buffer, 39A, 39C, and 39E, is a conventional buffer that receives, buffers, and transfers binary information in fashions well known in the art. Each buffer, 39A and 39C, transfers its received and buffered information to its associated processor, 39B and 39D respectively, for processing. Buffer, 39E, transfers its received and buffered information, via EOFS Valve, 39F, to matrix

		switch, 39I.
		The preferred embodiment of controller, 39, also has a buffer, 39G, that is a conventional buffer with means for receiving information from other inputs external to decoder, 203. Among said inputs is, in particular, an input from controller, 12, of signal processor, 200 (which input performs the functions of the input from controller, 12, to SPAM-controller, 205C, shown in Fig. 3). Buffer, 39G, outputs its received and buffered information, via EOFS Valve, 39H, to matrix switch, 39I. Buffer, 39G, is configured, in a fashion well known in the art, with capacity to identify to control processor, 39J, which input is the source of any given instance of information received and buffered at buffer, 39G, and capacity to output selectively, under control of control processor, 39J, any given instance of received information. EOFS Valves, 39F and 39H, are EOFS valves of the type described above and transfer the buffered information of buffers, 39E and 39G respectively, to matrix switch, 39I. Said valves operate under control of control processor, 39J, and monitor all information, so transferred, continuously for end of file signals in the fashion described above. Matrix switch, 39I, is a conventional digital matrix switch, well known in the art of telephone communication switching, that is configured for the small number of inputs and outputs required at controller, 39.
controls a switch or computer	Page 326 lines 19-20.	Cable program controller and computer, 73, is the central automatic control unit for the transmission station.
	Page 328 lines 14-15.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78, and can cause selected programming to be transmitted to field distribution system, 93, or recorded.
to communicate a selected signal	Page 367 lines 2-9.	Receiving said message and mark causes computer, 73, to cause recorder, 76, to commence playing and to cause matrix switch, 75, to configure its switches so as to cease transferring programming inputted from distribution amplifier, 63, to modulator, 83, then to commence transferring the output

		of recorder, 76, to modulator, 83, which causes the transmission of unit Q to field distribution system, 93.
to a transmitter, said method further comprising the step of:	Page 325 lines 1-4.	...apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
detecting a signal which is effective at said transmission station to program said programmable controller.	Page 527 lines 2-4, with page 537 lines 6-13.	Automatically, decoder, 30, detects said message and transfers all information of said message to controller, 12. At 3:10 AM, GMT, said European master network station transmits particular SPAM message information, embedded in the information of said master transmission, including a SPAM end of file signal and the aforementioned sequence of SPAM messages that contain operating system instructions. In so doing, said European master network station inputs operating system instructions to all SPAM apparatus and receiver station computers, 73, and microcomputers, 205,
	Page 527 line 31 to page 528 line 3.	Said information that is inputted to decoder, 203, is the contained SPAM message of said third SPAM message and is a complete SPAM message in its own right. Said contained message consists of a "01" header; execution segment information that is addressed to URS decoders, 203, of the example #3 version and that causes said said decoders, 203, each to invoke its ROM instructions for entering operating system instructions into its RAM;....

17. Claim 25

Claim Language	Spec. Reference	Specification Language
The method of claim 16, wherein said one or more instruct signals comprise downloadable code	Page 484 lines 15-18.	...said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
————	Page 54 lines 2-6.	

		An information segment can transmit any information that a processor can process. It can transmit compiled machine language code or assembly language code or higher level language programs, all of which are well known in the art.
	Page 364 lines 28-29.	...a complete instance of higher language code of said program instruction set....
targeted to a processor	Page 371 lines 26-27,	information of a particular SPAM execution segment that is addressed to URS microcomputers, 205;
	lines 33-35.	Said selected and transmitted information is complete information of said program-instruction-set message (#9).
at one or more of said plurality of receiver stations, said downloadable code programming a method	Page 484 lines 15-18.	*See above.*
in which said processor processes said subscriber response,	Page 509 line 35 to page 510 line 4,	Subsequently, so continuing executing instructions of its specific program instruction set of Q.1 or Q.2 causes apparatus at each subscriber station where where TV568* has been inputted to a local input, 225, automatically to telephone a shopping list order.
	with page 508 lines 21-30.	...said studio transmits audio information of the announcer saying: "Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen." At the station of Figs. 7 and 7F, the subscriber enters TV568* at the keyboard of local input, 225,....
generates said one or more subscriber specific data,	Page 485 lines 14-18.	Under control of the instructions of said program instruction set of Q.1, the microcomputer, 205, of Figs. 7 and 7F generates image information of a first video overlay and generates selected information of subsequent overlays in the following fashion.
or communicates said one or more subscriber	Page 511 lines 3-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station

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specific data to said one or more remote stations.		information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.

18.   Claim 26

Claim Language	Spec. Reference	Specification Language
The method of claim 16, further comprising the steps of: receiving generally applicable information	Page 356 lines 24-27,	Computer, 73, can receive and be caused to execute intermediate generation set information in any fashion that a computer receives and is caused to execute computer program instructions.
in respect of said combined medium presentation at said transmission station;	with page 357 lines 21-35.	Any given intermediate generation set contains generally applicable information of the particular program instruction set whose generation it causes. Generally applicable information is specific. For example, the generally applicable information of the intermediate generation set of the programming of Q includes binary sound image information of a particular announcer's voice saying, "forty-three", "forty-five", "forty-six", "low-salt Vindaloo", "Mild version Quick", and "Hot version Quick". And any given datum of generally applicable information may be specific information only of selected subscriber stations. Yet such information is generally applicable at any given transmission station because any given datum may be applicable at any or all of the subscriber stations of said transmission station.
	Page 507 line 20 to page 508 line 27.	Then said program originating studio embeds and transmits said 6th commence-outputting message (#10). Said message is identical to the 4th commence-outputting message (#10) except for different overlay number field information.
In the same fashion that applied to receiving the 4th commence-outputting message (#10), receiving the 6th commence-outputting message (#10) causes apparatus at each subscriber station that has completed the

		generation of second audio image information to combine its specific audio information to the transmitted audio and to emit sound of its combined audio. At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: 　　　"low-salt Vindaloo". (Simultaneously, the monitor, 202M, of the station of said second subscriber emits sound of said announcer's voice saying: 　　　"Mild version Quick". And at the station of said third subscriber, sound of said announcer's voice saying: 　　　"Hot version Quick" is emitted at the monitor, 202M.) After causing emission of audio information of the information at audio RAM once, the instructions of said program instruction sets of Q.1 and Q.2 cause a microcomputer, 205, to clear audio RAM then pause. Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: 　　　"Curry Paste. Do it now! Enter 'TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
processing a first portion of said generally applicable information in order to generate or assemble at least some of said one or more instruct signals; and	Page 363 line 34 to page 364 line 15.	Executing the information of said intermediate generation set causes computer, 73, to generate said program instruction set in the following fashion. Automatically, computer, 73, selects information of each of the aforementioned variables, a, p, q, d, Z, r, s, and dd; computes the value of variable b, under control of intermediate generation set instructions of equation (2), to be 62.21875; computes the value of variable c, under control of intermediate generation set instructions of equation (3), to be 2.117; and replaces particular variable values, a, b, and c, in a particular so-called "higher language line of program code" that is among the aforementioned generally applicable information of said program instruction set and is: $$Y = a + b + (c * X)$$
	Page 24 lines 14-21.	(Hereinafter, such a set of instructions that is loaded and run is called a "program

		instruction set.") In a fashion well known in the art, microcomputer, 205, loads the received binary information of said set at a designated place in RAM until, in a predetermined fashion, it detects the end of said set, and it executes said set as an assembled, machine language program in a fashion well known in the art.
transmitting a second portion of said generally applicable information to said subscriber station.	Page 369 lines 23-30,	Receiving said transmit-data-module-set message (#9) causes computer, 73, to generate a particular first outbound SPAM message that includes information of the aforementioned data file, DATA_OF.ITS, whose information constitutes a complete instance of a data module set of Q and to cause said message to be embedded in the transmission of the programming of Q and transmitted to field distribution system, 93, in the following fashion.
	with page 494 lines 3-8.	So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.

19.   Claim 27

Claim Language	Spec. Reference	Specification Language
The method of claim 16, further comprising the step of transmitting mass medium	Page 367 lines 25-27,	Causing recorder, 76, to play causes recorder, 76, to transmit programming of Q, via matrix switch, 75, and modulator, 83, to field distribution system, 93,....
programming to said subscriber station to serve as a basis for outputting said combined medium presentation.	Page 374 line 33 to page 375 line 6.	In example #10, a particular program originating studio transmits the commercial of program unit Q in a network transmission and controls a plurality of intermediate transmission stations each of which controls, in turn, a plurality of subscriber stations that are ultimate receiver stations. The station of Fig. 6 is one intermediate transmission station controlled by said studio. The station of Fig. 6 receives said network transmission at receiver, 53, and retransmits said transmission immediately via modulator, 83.

	page 324 lines 11-14.	The stations so automated may transmit any form of electronically transmitted programming, including television, radio, print, data, and combined medium programming....
	Page 478 lines 23-26.	Then said studio ceases transmitting "Exotic Meals of India" programming for a so-called "commercial break" and commences transmitting the conventional television video and audio information of program unit Q.
	Page 509 lines 31-34.	In due course, said studio ceases transmitting programming of said program unit of Q and recommences transmitting programming of said "Exotic Meals of India" program.

20.   Claim 28

Claim Language	Spec. Reference	Specification Language
The method of claim 16, further comprising the steps of: storing a schedule; and	Page 326 lines 25-33.	Computer, 73, has capacity for maintaining records on the station's programming schedule and records on the status of operating apparatus. Computer, 73, has means for receiving input information from local input, 74, and from remote stations via telephone or other data transfer network, 98. Such input information can include the complete programming schedule of the station of Fig. 6, with each discrete unit of programming identified by its own "program unit identification code" information.
generating said one or more instruct signals in accordance with said schedule.	Page 355 lines 18-26,	Computer, 73, is preprogrammed to process combined medium programming. When the aforementioned remote distribution station inputs information to computer, 73, via network, 98, regarding unit Q, said distribution station inputs information that Q is particular combined medium programming and instructs computer, 73, to commence particular program instruction set generation in a particular fashion at a particular time interval prior to the scheduled playing of Q.
	and page 363 lines 9-	At the aforementioned interval Q time prior

	11.	to the scheduled playing of Q, when computer, 73, commences generating said program instruction set,....

21.   Claim 29

Claim Language	Spec. Reference	Specification Language
The method of claim 16, wherein said one or more instruct signals include at least some part of a software module and a data module, said method further comprising the steps of:	Page 372 line 4-6.

Page 364 line 25 to page 365 line 24. | ...thereby transmitting said program-instruction-set message (#9) to said system, 93.

Automatically, computer, 73, selects and computes information of other variables and replaces other variable values of said generally applicable program instruction set information until a complete instance of higher language code of said program instruction set with all required formula-and-item-of-this-transmission information has been generated and exists at particular memory. Automatically, computer, 73, compiles the information of said instance and places the resulting so-called "object module" at particular memory (which compiling could be done, in the case of a program written in IBM BASIC, with the IBM BASIC Compiler of the IBM Personal Computer Computer Language Series). Automatically, computer, 73, links the information of said object module with information of other compiled object modules that exist in memory at computer, 73, (and may have been transmitted to computer, 73, in the generally applicable program instruction set information if said intermediate generation set); generates a particular PROGRAM.EXE output file that is said program instruction set; and places said file at particular program-set-to-transmit memory of computer, 73, (which linking could be done, in the case of a program compiled by the IBM BASIC Compiler with the linker program of the IBM Disk Operating System of the IBM Personal Computer Computer Language Series). One of said other compiled object modules is a module that, when accessed in a fashion well known in the art, computes the shortest vehicle driving distance between any two |

		locations in the local vicinity of the station of Fig. 6 when passed two street addresses of said vicinity. (Hereinafter, the program instruction set generated in example #9, under control of said intermediate generation set of Q, is called the "program instruction set of Q".) Executing the information of said intermediate generation set causes computer, 73, also to generate a particular associated data module.
	Page 370 lines 14-15.	complete information of said data file, DATA_OF.ITS; and information of a SPAM end of file signal.
	Page 371 lines 30-31.	...complete information of the aforementioned file that is at the aforementioned program- set-to-transmit memory of computer, 73,....
	Page 16 lines 22-25.	Flexibility must exist for expanding the capacity of installed systems by means of transmitted software and for altering installed systems in a modular fashion by adding or removing components.
	Page 369 lines 23-30.	Receiving said transmit-data-module-set message (#9) causes computer, 73, to generate a particular first outbound SPAM message that includes information of the aforementioned data file, DATA_OF.ITS, whose information constitutes a complete instance of a data module set of Q and to cause said message to be embedded in the transmission of the programming of Q and transmitted to field distribution system, 93, in the following fashion.
	Page 371 lines 11-19.	Receiving said transmit-and-execute-program-instruction-set message (#9) causes computer, 73, to generate a second outbound SPAM message that includes information of said program instruction set of Q and to cause said message to be embedded in the transmission of the programming of Q and transmitted to field distribution system, 93, in the following fashion. (Hereinafter, said second outbound SPAM message is called the "program-instruction-set message (#9).")
incorporating into said one or more of a software module and	Page 360 lines 12-17,	(Formula- and-item-of-this-transmission information can be incorporated into more than one module by any given intermediate

a data module data to serve as a basis for outputting said combined medium presentation at said subscriber station;	with page 493 line 33 to page 494 line 8.	generation set.) Said formula-and-item-of-this-transmission information can consist of both computer program instructions and data. At the station of Figs. 7 and 7F, microcomputer, 205, clears its audio RAM then determines, in the predetermined fashion of said program instruction set of Q.1, that the shopping list information at particular shopping- list memory at said station includes information of Patak's low-salt Vindaloo Curry Paste. So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.
and transmitting said one or more of a software module and a data module.	Page 372 lines 4-6.	...thereby transmitting said program-instruction-set message (#9) to said system, 93.
	Page 371 lines 30-31.	...complete information of the aforementioned file that is at the aforementioned program- set-to-transmit memory of computer, 73, and that is said program instruction set of Q;....
	Page 16 lines 22-25.	Flexibility must exist for expanding the capacity of installed systems by means of transmitted software and for altering installed systems in a modular fashion by adding or removing components.
	Page 371 lines 2-3.	...thereby transmitting said data- module-set message (#9) to said system, 93.
	Page 370 lines 14-15.	...complete information of said data file, DATA_OF.ITS; and information of a SPAM end of file signal.

22.   Claim 30

Claim Language	Spec. Reference	Specification Language
The method of claim 29, wherein said data module includes	Page 501 lines 21-25.	selects from said D:DATA_OF.ITS file information of the aforementioned southwest delivery route telephone number,

video or audio.		"456-1414", and causes binary image information of said number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.
	Page 494 lines 3-8.	So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.

23. Claim 31

Claim Language	Spec. Reference	Specification Language
The method of claim 29, further comprising the steps of: storing one or more of (1) formula or item information and (2) an intermediate generation set;	Page 358 lines 10-21.	When executed at a computer, 73, that is preprogrammed with particular local-formula-and-item information (that is, particular data), the instructions of a given intermediate generation set (that is, of a given computer program) cause said computer, 73, to generate particular formula-and-item- of-this-transmission information and incorporate said information into said generally applicable information of said particular program instruction set, thereby generating the particular program instruction set instance applicable to a particular transmission at a particular intermediate transmission station. The set information so generated may consist of computer program instructions and/or data.
	Page 359 lines 22-23.	In the fashion of the first message of the "Wall Street Week" example at microcomputer, 205, computer, 73, is caused to load information of said intermediate generation set at particular RAM.
and generating at least some of a program instruction set and a command.	Page 358 lines 17-18.	...thereby generating the particular program instruction set instance applicable to a particular transmission at a particular intermediate transmission station.
	Page 42 lines 8-11.	(Hereinafter, instances of computer program information that cause intermediate transmission station apparatus to generate

		program instruction set information and/or command information are called "intermediate generation sets.")

24.   Claim 32

Claim Language	Spec. Reference	Specification Language
The method of claim 29, further comprising the step of incorporating into said one or more of a software module and a data module **an identifier**	Page 360 lines 12-17.	(Formula- and-item-of-this-transmission information can be incorporated into more than one module by any given intermediate generation set.) Said formula-and-item-of-this-transmission information can consist of both computer program instructions and data.
which enables said subscriber station to initiate communications with at least one of said one or more remote stations.	Page 366 lines 4-13.	...binary video image information of several telephone numbers, including a particular southwest delivery route telephone number, "456-1414", and a particular northwest delivery route telephone number, "224-3121"; and information of the particular local-automatic-order-taking telephone number of the supermarket chain applicable in the vicinity of the intermediate transmission station of Fig. 6 which is 1-(800) 247-8700. Automatically, computer, 73, places said selected information (and any other information so selected) in a particular file called DATA_OF.ITS....
	Page 510 lines 17-30.	...to select information from said file of the aforementioned local-automatic-order-taking telephone number of the supermarket chain applicable in the vicinity of the intermediate transmission station of Fig. 6 which is 1-(800) 247-8700; to transmit to controller, 20, particular call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700; and to record particular instructions at the recording medium of the disk at the A: disk drive of microcomputer, 205, in a file named "SHOPPING.EXE". Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to

		dial the telephone number, 1-(800) 247-8700.
	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
	Page 508 lines 25-27.	"...Input or call the telephone number that you see on your television screen."

25. Claim 33

Claim Language	Spec. Reference	Specification Language
The method of claim 32, wherein said identifier is a telephone number and said one or more instruct signals cause said subscriber station to dial said telephone number.	Page 366 line 4-13. Page 510 lines 17-30. Page 509 line 35 to page 510 line 4.	*See above.* *See above.* Subsequently, so continuing executing instructions of its specific program instruction set of Q.1 or Q.2 causes apparatus at each subscriber station where where TV568* has been inputted to a local input, 225, automatically to telephone a shopping list order.

26. Claim 34

In example #9/#10 of the 1987 patent specification (also cited in claim 9), a viewer station receives an information transmission (e.g., a multichannel video signal) with contains information applicable to a general audience. The generally applicable information include a data module (e.g., containing selectable video or audio for output in a combined medium presentation) and a video commercial advertising supermarket products. The information transmission also includes a plurality of combining control signals (e.g., a computer program to control the viewer station to select video or audio from the data module video or audio and command(s) to time the viewer station to output the selected video or audio in the

course of the commercial). A computer at the viewer station stores the data module and combining control signals. The video commercial is outputted at a television monitor. One portion of the combining control signals (e.g., the computer program) selects information that is of specific relevance to a viewer (e.g., information about a desired product or benefit to be obtained). Another portion outputs the selected information at specific times in the commercial when the selected information is relevant (e.g., when a video image in the commercial points to the selected information). The combined medium presentation communicates an offer to the viewer regarding an ingredient of the viewer's shopping list. The viewer responds affirmatively, causing the shopping list to be communicated to a remote computer of the supermarket by telephone.

Claim 34 finds support at pages 469-516 of the specification.

Claim Language	Spec. Reference	Specification Language
A method of communicating subscriber station information	Page 511 lines 3-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
from a subscriber station	Page 469 lines 7-11.	The microcomputer, 205, of the station of Fig. 7 and 7F, is preprogrammed to receive and process automatically meal recipe instructions and holds records of the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family.
to one or more remote stations including:	Page 511 line 5.	...to said computer at a remote station.....
receiving one or more information transmissions	Page 470 lines 9-16.	At the station of Fig. 7 and 7F (which station is a subscriber station of the intermediate station of Fig. 6), in the fashions described above, apparatus is caused to receive the particular transmission of said program that is retransmitted by the intermediate station

		of Fig. 6; to interconnect in such a way that the audio information received at a tuner, 215, and the video information received at said tuner, 215, are inputted separately,
at said subscriber station, said information transmissions including generally applicable information	Page 482 line 32 to page 483 line 2.	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message in a particular file, named "DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station.
	Page 357 lines 21-35.	Any given intermediate generation set contains generally applicable information of the particular program instruction set whose generation it causes. Generally applicable information is specific. For example, the generally applicable information of the intermediate generation set of the programming of Q includes binary sound image information of a particular announcer's voice saying, "forty-three", "forty-five", "forty-six", "low-salt Vindaloo", "Mild version Quick", and "Hot version Quick". And any given datum of generally applicable information may be specific information only of selected subscriber stations. Yet such information is generally applicable at any given transmission station because any given datum may be applicable at any or all of the subscriber stations of said transmission station.
	Page 494 lines 3-8.	So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.
	Page 45 lines 25-26.	("ITS" refers, hereinafter, to intermediate transmission station apparatus, and "URS" refers to ultimate receiver station apparatus.)
and a plurality of combining control signals,	Page 484 lines 5-18.	Receiving the specific program-instruction-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the PROGRAM.EXE information in said message at particular RAM and

		execute the information so loaded as a machine language job. At the station of Figs. 7 and 7F, receiving the program-instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 504 lines 28-30.	At the station of Fig. 7 and 7F, decoder, 203, receiving said 4th commence-outputting message (#10) causes decoder, 203, to execute "SOUND ON" at the microcomputer, 205 of said station.
	Page 506 lines 13-17.	At the station of Fig. 7 and 7F, receiving said 5th commence- outputting message (#10) causes decoder, 203, to execute "GRAPHICS ON" at the PC-MicroKey system of microcomputer, 205.
said generally applicable information including (1) some of a user specific combined medium presentation	Page 506 lines 17-26.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M. (Simultaneously and in the same fashion, apparatus at the station of said second subscriber causes the specific video RAM image information of said station, which is "224-3121", to be displayed in the lower middle portion of the picture screen of the monitor, 202M, of said station.
	Page 501 lines 16-34.	Automatically, under control of said instructions, microcomputer, 205, clears video RAM; sets the background color of video RAM to a transparent overlay black; determines that the aforementioned 1st. working memory of said microcomputer, 205, holds southwest-quadrant information; selects from said D:DATA_OF.ITS file information of the aforementioned southwest delivery route telephone number, "456-1414", and causes binary image information of said number to be placed at bit locations that produce video

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		image information in the lower middle portion of a video screen. (Under control of the first-clear-and-continue instructions of its station's program instruction set of Q.1, the microcomputer, 205, of the station of said second subscriber clears video RAM; sets background to transparent black; determines that the 1st working memory of said microcomputer, 205, holds northwest-quadrant information; and causes binary information of the selected northwest delivery route telephone number, "224-3121", to be placed at particular lower middle video screen bit locations.
and (2) video to serve as a basis on which to present said some of a user specific combined medium presentation,	Page 506 line 19.	...conventional video information....
at least said plurality of combining control signals being received from said one or more remote stations;	Page 484 lines 1-7.	Then said studio transmits said transmit-and-execute-program-instruction-set message (#10), causing each intermediate transmission station, including the station of Fig. 6 and said second intermediate transmission station, to transmit its specific program-instruction-set message (#10), as described above.
	Page 504 lines 12-13..	Then said program originating studio embeds and transmits said 4th commence-outputting message (#10).
	Page 505 lines 32-33..	At this moment, said program originating studio embeds and transmits said 5th commence-outputting message (#10).
storing a portion of said generally applicable information and said plurality of combining control signals at said subscriber station;	Page 482 line 32 to page 483 line 2.	Receiving the specific data-module-set message (#10) of its intermediate transmission station causes each ultimate receiver station to record one instance of the DATA_OF.ITS information in said message in a particular file, named "DATA_OF.ITS" at so-called "RAM disk" memory of the microcomputer, 205, of said station.
	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder,

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		203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
outputting said video at a video monitor;	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
	Page 507 lines 1-7.	"...the information that you see here on your screen," Said studio transmits video information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner.
selecting user specific information	Page 501 lines 21-25.	...selects from said D:DATA_OF.ITS file information of the aforementioned southwest delivery route telephone number, "456-1414", and causes binary image information of said number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.
to output by processing said generally applicable information in accordance with at least a first of said plurality of combining control signals;	Page 500 lines 20-22.	...and to execute a particular when-interrupted portion of said program instruction set of Q.1.
	Page 501 lines 5-6.	Then, under control of the instructions of said when-interrupted portion, microcomputer, 205, determines....
	Page 493 line 33 to page 494 line 8.	At the station of Figs. 7 and 7F, microcomputer, 205, clears its audio RAM then determines, in the predetermined fashion of said program instruction set of Q.1, that the shopping list information at particular shopping- list memory at said station includes information of Patak's low-salt Vindaloo Curry Paste. So determining causes said microcomputer, 205, in said predetermined fashion, to select particular sound image information of an announcer's voice saying "low-salt Vindaloo" from among the information of its D:DATA_OF.ITS file and to place said selected information at said audio RAM.
outputting said selected user specific	Page 504 lines 2-11.	"Exotic Meals of India," and transmits audio information of said announcer saying:

information in a series of times of specific relevance		"Super Discount Supermarkets is proud to sponsor the television series, 'Exotic Meals of India.' Being truly exotic, many of the ingredients, can't be found in average supermarkets, but your friendly Super Discount manager is happy to supply all of these ingredients to your family. Tonight your personal recipe and shopping list call for Patak's"
	Page 504 line 35 to page 505 line 4.	...and the subscriber of said station can hear said announcer's voice saying: "low-salt Vindaloo".
	Page 505 lines 23-30.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Your local Super Discount Supermarket has a complete line of Patak's Curry Paste products in stock. Call the telephone number,"....
	Page 506 lines 16-21.	..."GRAPHICS ON" at the PC-MicroKey system of microcomputer, 205. Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
	Page 506 lines 32-35.	Said studio then transmits audio information of the announcer saying, "that you see on your screen to have your order....
in response to at least a second of said plurality of combining control signals;	Page 504 lines 28-30.	At the station of Fig. 7 and 7F, decoder, 203, receiving said 4th commence-outputting message (#10) causes decoder, 203, to execute "SOUND ON" at the microcomputer, 205 of said station.
	Page 506 lines 13-17.	At the station of Fig. 7 and 7F, receiving said 5th commence- outputting message (#10) causes decoder, 203, to execute "GRAPHICS ON" at the PC-MicroKey system of microcomputer, 205.
inputting at said subscriber station a first subscriber response	Page 508 lines 27-30.	At the station of Figs. 7 and 7F, the enters TV568* at the keyboard of local input, 225,....

to said user specific combined medium presentation, said user specific combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source and (ii) a datum computed at said subscriber station in response to said one or more of said plurality of combining control signals; and	Page 505 lines 25-30.	studio transmits audio information of the announcer saying: "Curry Paste. Your local Super Discount Supermarket has a complete line of Patak's Curry Paste products in stock. Call the telephone number."
	Page 506 lines 17-21.	Automatically, microcomputer, 205, combines its specific video RAM binary image information of "456-1414" with its received conventional video information. And automatically 456-1414 is displayed in the lower middle portion of the picture screen of monitor, 202M.
	Page 506 line 32 through page 507 line 21.	Said studio then transmits audio information of the announcer saying, "that you see on your screen to have your order delivered to your door. Or if you enter on your Widget Signal Generator and Local Input the information that you see here on your screen." Said studio transmits video information of said person pointing to the upper left hand corner of the video screen, and the image of "TV568*" appears in said corner. Thus each viewer--including the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber-- can see TV568* in the upper left hand corner of the picture on the monitor, 202M, of his station. Said studio then transmits audio information of the announcer saying, "your Super Discount manager will see that all the ingredients that you need for your personal 'Exotic Meals of India' fish curry recipe are delivered to you in time for dinner tomorrow. And as a special inducement to enter "TV568*" on your Widget Signal Generator and Local Input now, your manager promises to include one jar of Patak's"
	Page 507 line 33 through page 508 line 3.	At the station of Fig. 7 and 7F, decoder, the monitor, 202M, emits sound of said announcer's voice saying: "low-salt Vindaloo".
	Page 508 lines 19-27.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer

		saying: "Curry Paste. Do it now! Enter TV568*' on your Widget Signal Generator and Local Input or call the telephone number that you see on your television screen."
transferring one or more subscriber specific data from said subscriber station to said one or more remote stations based on said first subscriber response.	Page 510 line 26 to page 511 line 9.	Receiving said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions and information of 1-(800) 247-8700 causes controller, 20, in the fashion described above, to cause auto dialer, 24, to dial the telephone number, 1-(800) 247-8700. Automatically, in the fashion described above, controller, 20, establishes telephone communications with a computer of said super market chain at a remote station. Then said call-this-number-and-respond-with-"A:SHOPPING.EXE" instructions cause controller, 20, to cause the instruction "A:SHOPPING.EXE" to be entered to microcomputer, 205. Entering said instruction causes microcomputer, 205, to execute the instructions of said file, "SHOPPING.EXE" as a machine language job. Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.

27.   Claim 35

Claim Language	Spec. Reference	Specification Language
The method of claim 34, further comprising the step of outputting at a speaker audio which explains information contained in said user specific combined medium presentation.	Page 470 lines 13-17. Page 490 lines 11-23.	...to interconnect in such a way that the audio information received at a tuner, 215, and the video information received at said tuner, 215, are inputted separately, via matrix switch, 258, to monitor, 202M;.... Said studio transmits television picture information of the upper torso of a person and audio information of an announcer saying, "For a limited time only, Super Discount Supermarkets make this special offer to you. Super Discount Supermarkets will deliver to

		you, at cost, all the pork you need to entertain five hundred people for this low, low price ... " Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
	Page 491 lines 6-16.	At the station of Fig. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 1st commence-outputting message (#10) causes decoder, 203, to execute "GRAPHICS ON" at the PC- MicroKey system of microcomputer, 205. Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.

28.   Claim 36

Claim Language	Spec. Reference	Specification Language
The method of claim 35, further comprising the step of outputting some of said user specific combined medium presentation at said speaker.	Page 504 line 31 to page 505 line 4,	Automatically, microcomputer, 205, transmits to monitor, 202M, via audio information transmission means, one instance of the information at the audio RAM of said microcomputer, 205, causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "low-salt Vindaloo".
	with respect to page 504 lines 2-10,	"Exotic Meals of India," and transmits audio information of said announcer saying: "Super Discount Supermarkets is proud to sponsor the television series, 'Exotic Meals of India.' Being truly exotic, many of the ingredients, can't be found in average supermarkets, but your friendly Super Discount manager is happy to supply all of these ingredients to your family. Tonight your personal recipe and shopping list call for Patak's".....

	and page 505 lines 23-30.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "Curry Paste. Your local Super Discount Supermarket has a complete line of Patak's Curry Paste products in stock. Call the telephone number,"....

29.   Claim 37

Claim Language	Spec. Reference	Specification Language
The method of claim 34, wherein said video includes some of a television program,	Page 470 lines 1-2.	...transmits the programming transmission of a particular conventional television program....
said method further comprising the step of synchronizing the delivery of the balance of said television program at said	Page 490 lines 20-23.	Said studio transmits television picture information of the right hand and arm of said person pointing moving to point at the upper left hand corner of the television screen.
subscriber station based on said plurality of combining control signals.	Page 491 lines 6-16.	At the station of Fig. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 1st commence-outputting message (#10) causes decoder, 203, to execute "GRAPHICS ON" at the PC- MicroKey system of microcomputer, 205. Automatically, microcomputer, 205, combines its specific video RAM binary image information of "$1,071.32" with its received conventional video information. And automatically $1,071.32 is displayed at the upper left hand corner of the picture screen of monitor, 202M, which is the corner to which the image of the person shown at said screen is pointing.
	Page 485 lines 14-18.	Under control of the instructions of said program instruction set of Q.1, the microcomputer, 205, of Figs. 7 and 7F generates image information of a first video overlay and generates selected information of subsequent overlays in the following fashion.
	Page 486 lines 23-27.	...causes binary image information of "$1,071.32" to be placed at bit locations of

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		video RAM that produce video image information in the upper left hand of a video screen when video RAM information is transmitted to said screen.
	Page 26 lines 20-28.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.)

30. Claim 38

Claim Language	Spec. Reference	Specification Language
The method of claim 34, wherein said subscriber station includes a video random access memory (RAM)	Page 25 lines 1-3.	...in a fashion well known in the art, the instructions cause microcomputer, 205, to enter digital bit information at the video RAM of the graphics card....
operatively connected to said video monitor, said method further comprising	Page 19 line 29 to page 20 line 7.	Microcomputer, 205, is a conventional microcomputer system with disk drives that is adapted to have capacity for receiving signals from decoder, 203; for generating computer graphic information; for receiving a composite video transmission; for combining said graphic information onto the video information of said transmission by graphic overlay techniques, well known in the art; and for outputting the resulting combined information to a TV monitor, 202M, in a composite video transmission. One such system is the IBM Personal Computer of International Business Machines Corporation of Armonk, New York with an IBM Asynchronous Communications Adapter installed in one expansion slot and a PC-MicroKey Model 1300 System with Techmar Graphics Master Card.....

	Page 499 line 24 to page 500 line 5,	Then said program originating studio embeds and transmits said 1st cease-outputting message (#10). Said message is identical to the aforementioned third message of the "Wall Street Week" example. Receiving said 1st cease-outputting message (#10) causes each subscriber station to cease combining and to display only the transmitted video information at its monitor, 202M. At the station of Figs. 7 and 7F, decoder, 203, detects the information of said message, and receiving said 1st cease-outputting message (#10) causes decoder, 203, to execute "GRAPHICS OFF" at the PC-MicroKey System of microcomputer, 205. In so doing, decoder, 203, causes said PC-MicroKey to cease combining its specific image information with the conventional video information transmitted by said studio, to commence transmitting only the transmitted video information to monitor, 202M.
he step of clearing said video RAM in response to a third of said plurality of combining control signals.	Page 501 lines 16-17.	Automatically, under control of said instructions, microcomputer, 205, clears video RAM;....

31.   Claim 39

Claim Language	Spec. Reference	Specification Language
The method of claim 34, wherein said subscriber station includes a programmable controller	Page 471 line 24 to page 472 line 15	to retain said TV567# information at particular last-local-input-# memory. Five minutes later, said program originating studio embeds in the transmission of the "Exotic Meals of India" programming and transmits a particular first SPAM message that consists of an "01" header, particular execution segment information that is addressed to URS signal processors, 200, appropriate meter-monitor information, padding bits as required, an information segment of particular check-for-entered-information-and-process instructions, and an end of file signal. At the station of Figs. 7 and 7F, said message

		is detected at TV signal decoder, 145, and said execution segment information invokes particular controlled function instructions that cause said message to be transferred to the controller, 20, of signal processor, 200. Automatically, the controller, 39, of decoder, 145, transmits particular switching request information to the control processor, 20A, of signal processor, 200, via the aforementioned control information bus means. Receiving said information causes control processor, 20A, to cause matrix switch, 259, to establish a communications link between said controller, 39, and said controller, 20. Automatically, said controller, 39, transfers said message to said controller, 20. Receiving said message causes controller, 20, to load and execute said check-for-entered-information-and-process instructions,....
which controls one or more of a code portion receiver,	Page 458 lines 18-35.	One controlled function that is preprogrammed at the controllers, 39, of the decoders, 203, of subscriber stations and that is caused to be executed by receiving a SPAM message containing expand-to-full-field-search execution segment information is a function whose instructions cause said controller, 39, to cause the line receivers, 33, of said decoders, 203, to commence detecting digital information in every frame of its received video information from the first detectable portion of line 20 of said frame to the last detectable portion of the last line of said frame. A second controlled function that is preprogrammed at said controllers, 39, and that is caused to be executed by receiving a SPAM message containing resume- normal-location-search execution segment information is a function whose instructions cause said controller, 39, to cause said line receivers, 33, to commence detecting digital information in the normal transmission location of every frame of its received video information.
a control signal detector,	Page 460 lines 14-19.	Receiving said message causes apparatus at each station to cause the line receiver, 33, of the decoder, 203, of said station to commence detecting digital information in every frame of its received video information from the first detectable portion of line 20 of said frame to the last detectable portion of the last line of said frame.

a computer adapted to generate a video overlay, said method further comprising the steps of:	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
detecting a control program in one of said one or more information transmissions;	Page 471 line 24 to page 472 line 15.	*See above.*
and programming said programmable controller.	Page 471 line 24 to page 472 line 15.	*See above.*

32. Claim 40

Claim Language	Spec. Reference	Specification Language
The method of claim 34, wherein said subscriber station generates information in accordance with said at least a first of said plurality of combining control signals, said method further comprising the step of	Page 484 lines 12-18.	At the station of Figs. 7 and 7F, receiving the program- instruction-set message (#10) transmitted by the intermediate transmission station of Fig. 6 causes said message to be detected at decoder, 203, and causes decoder, 203, to load and execute at microcomputer, 205, the information segment of said message (which is the program instruction set of Q.1 and is the output file, PROGRAM.EXE, of said station).
	Page 487 lines 29-33.	Then, under control of said instructions that constitute the specific program instruction set of the microcomputer, 205, of the station of Figs. 7 and 7F, said microcomputer, 205, generates and stores additional information of subsequent outputs, selects sound image information of a first audio overlay, and places said selected information at audio RAM.
selecting said some of a user specific combined medium presentation based on said generated	Page 488 lines 24-27.	and selects the audio information of an announcer's voice saying "forty-six" from among the information of said file, D:DATA_OF.ITS; and places said information at audio RAM.

information.	Page 491 lines 30-35.	Said studio then transmits audio information of the announcer saying:"Super Discount Supermarkets makes this offer—today only—at cost, and this offer represents a saving to you of over."
	Page 492 lines 26-30.	causing the emission of sound of said audio information, and the subscriber of said station can hear said announcer's voice saying: "forty-six".
	Page 493 lines 16-21.	Then after an interval that is long enough for each subscriber station to emit sound of its specific audio RAM information, said studio transmits audio information of the announcer saying: "percent."

33. Claim 41

Claim Language	Spec. Reference	Specification Language
The method of claim 35, wherein said subscriber station generates information based on a second subscriber response, said method further comprising the step of	Page 474 lines 2-8.	Executing said generate-recipe-and-shopping-list instructions causes microcomputer, 205, to generate information of the specific fish curry recipe and fish curry shopping list of the family of the subscriber of the station of Figs. 7 and 7F; to cause said recipe and shopping list to be printed at printer, 221; and to retain information of said shopping list at particular memory.
	Page 471 lines 6-17.	Halfway through the program the host says, "If you are interested in cooking what we are preparing here and want a your own printed copy of the recipe tailored to your own tastes and your own shopping list for a charge of only 10 cents, enter on your Widget Signal Generator and Local Input the information that you see on your screen." The information that appears on the screen of each subscriber is "TV567#". Each subscriber—in particular, the subscriber of the station of Figs. 7 and 7F, said second subscriber, and said third subscriber—enters TV567#, in a fashion well known in the art,....
inputting said second subscriber response	Page 471 lines 6-17,	*See immediately above.*

| prior to said first subscriber response. | with respect to page 508 lines 29-30. | At the station of Figs. 7 and 7F, the subscriber enters TV568* at the keyboard of local input, 225, |

34.   Claim 42

Claim Language	Spec. Reference	Specification Language
The method of claim 35, wherein said subscriber station generates information by processing subscriber data, said method further comprising the step of storing said subscriber data.	Page 474 lines 2-23.	Executing said generate-recipe-and-shopping-list instructions causes microcomputer, 205, to generate information of the specific fish curry recipe and fish curry shopping list of the family of the subscriber of the station of Figs. 7 and 7F; to cause said recipe and shopping list to be printed at printer, 221; and to retain information of said shopping list at particular memory. Automatically, microcomputer, 205, accesses its A:DATA_OF.URS file, in a fashion well known in the art, and selects the aforementioned information that specifies the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family; determines that one ingredient of the recipe of said family is "Patak's low- salt Vindaloo Curry Paste" (because said family prefers particular very hot and spicy foods and prefers to minimize salt consumption); computes that, at one-half pound of halibut fish and one teaspoonful of said Vindaloo Paste per adult, the recipe of said family (which is of four adults) calls for two pounds of halibut and four teaspoonfuls of said Paste and that the shopping list of said family lists two pounds of halibut and one jar of "Patak's low-salt Vindaloo Curry Paste";....
	Page 469 lines 7-17.	The microcomputer, 205, of the station of Fig. 7 and 7F, is preprogrammed to receive and process automatically meal recipe instructions and holds records of the size of the family of the subscriber of said station together with the tastes and dietary habits of the members of said family. For example, particular information is recorded in a file named DATA_OF.URS that is on a so-called "floppy disk" that is loaded at the A: disk drive at said microcomputer, 205. Said

		information specifies that said family prefers particular very hot and spicy foods, prefers to minimize salt consumption, and consists of four adults.

35. Claim 43

Claim Language	Spec. Reference	Specification Language
The method of claim 12, further comprising the step of generating one or more first subscriber specific data including said receiver specific datum.	Page 485 lines 14-18.	Under control of the instructions of said program instruction set of Q.1, the microcomputer, 205, of Figs. 7 and 7F generates image information of a first video overlay and generates selected information of subsequent overlays in the following fashion.
	Page 486 lines 9-27.	Then automatically, on a machine language basis and in a fashion well known in the art, said microcomputer, 205, substitutes the value 4.3 for the variable X in the equation: $Y = 1000.00 + 62.21875 + (2.117 * X)$ computes the value of Y that is specific the the station of Figs. 7 and 7F to be: 1071.32 (rounded in a fashion well known in the art); and stores 1071.32 information at particular 2nd working memory of said microcomputer, 205. Automatically, microcomputer, 205, clears video RAM; causes the background color of video RAM to be a color such as black that is transparent when combined with transmitted video by the PC-MicroKey System; causes binary image information of "$1,071.32" to be placed at bit locations of video RAM that produce video image information in the upper left hand of a video screen when video RAM information is transmitted to said screen.

36. Claim 44

Claim Language	Spec. Reference	Specification Language
The method of claim 13, further comprising the step selecting said graphic based on said	Page 501 lines 10-25.	So determining causes microcomputer, 205, to place "0" at particular Flag-interrupt register memory of said CPU that is normally "1" then to jump to a particular

generated one or more first subscriber specific data.		first-clear-and-continue address of the instructions of said program instruction set of Q.1 and to commence executing first-clear-and-continue instructions at said address. Automatically, under control of said instructions, microcomputer, 205, clears video RAM; sets the background color of video RAM to a transparent overlay black; determines that the aforementioned 1st working memory of said microcomputer, 205, holds southwest-quadrant information; selects from said D:DATA_OF.ITS file information of the aforementioned southwest delivery route telephone number, "456-1414", and causes binary image information of said number to be placed at bit locations that produce video image information in the lower middle portion of a video screen.

37.   Claim 45

Claim Language	Spec. Reference	Specification Language
The method of claim 13, further comprising the step of selecting audio based on said generated one or more first subscriber specific data.	Page 489 lines 23-32.	computes information of .4366 [rounded], which is the decimal equivalent of the percentage saving of said second subscriber by dividing the information at said 3rd working memory [which is 882.50] by said cost-of-a-trimmed-pork-belly-unit information [which is 2021.42]; determines that said information of .4366 is greater than .4300 and less than .4400; selects the audio information of an announcer's voice saying "forty-three" from its file, D:DATA_OF.ITS; and places said information at said audio RAM.)

38.   Claim 46

Claim Language	Spec. Reference	Specification Language
The method of claim 9, wherein said one or more second subscriber specific data include at least	Page 511 lines 3-9.	Under control of said instructions, microcomputer, 205, transmits via controller, 20, to said computer at a remote station information of the street address of the station of Figs. 7 and 7F (selected from the

one of said one or more first subscriber specific data.		file, A:DATA_OF.URS) and complete information of the aforementioned file, A:SHOPPING.LST, which is the shopping list of the subscriber of said station.
	Page 474 lines 2-6,	Executing said generate-recipe-and-shopping-list instructions causes microcomputer, 205, to generate information of the specific fish curry recipe and fish curry shopping list of the family of the subscriber of the station of Figs. 7 and 7F;....
	and lines 32-33.	...records one instance of the output of said shopping list at particular shopping-list memory;....

39. Conclusion

Applicants respectfully submit that claims 9-46 of the subject application particularly point out and claim the subject matter sufficiently for one of ordinary skill in the art to comprehend the bounds of the claimed invention. The test for definiteness of a claim is whether one skilled in the art would understand the bounds of the patent claim when read in light of the specification, and if the claims so read reasonably apprise those skilled in the art of the scope of the invention, no more is required. *Credle v. Bond*, 25 F.3d 1556, 30 USPQ2d 1911 (Fed. Cir. 1994). The legal standard for definiteness is whether a claim reasonably apprises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Applicants have amended the claims to enhance clarity and respectfully submit that all pending claims are fully enabled by the specification and distinctly indicate the metes and bounds of the claimed subject matter.

D.   Support for Previous Amendment of "signal words" to "signal units"

During the interview of July 15th, 1999, the Examiners requested Applicants to demonstrate that no new matter was introduced into the

specification in the amendment entered on October 21, 1998 which changed the

following language in the specification on page 37 lines 22-25:

> "Controller, 39, 44, or 47, is preprogrammed to receive [units]
> words of signal information, to assemble said [units] words into
> signal [words] units that subscriber station apparatus can receive
> and process, and to transfer said [words] units to said apparatus."

Applicants submit that this amendment was merely made to correct a

typographical mistake on their part. Additionally, specification support to verify

the necessity of the amendment is found in the following language from page 14

lines 22-35.

> In all cases, signals may convey information in discrete words,
> transmitted at separate times or in separate locations, that receiver
> apparatus must assemble in order to receive one complete
> instruction.
>
> (The term "signal unit " hereinafter means one complete signal
> instruction or information message unit.... The term "signal word"
> hereinafter means one full discrete appearance of a signal as
> embedded at one time in one location on a transmission....)
> *Emphasis added.*

From the above language, a "signal unit" is "one complete signal

instruction or information message unit." *Words* of signal information are

received and assembled into *signal units*, or completed instructions, for the

subscriber station apparatus to receive, process and transfer. Thus, it should be

clear from this passage that no new matter was introduced with the amendment

and Applicants urge the PTO to maintain and/or enter the previous amendment

as appropriate under 37 C.F.R. § 1.118 (a).

E. Prior art anticipation by Campbell et al., U.S. Pat. No. 4,536,791

The examiner of record indicates that Applicants claims are anticipated by

Campbell et al. The following sections, categorized by each independent claim,

will demonstrate how Campbell et al. fails to anticipate Applicants' claim language.

U.S. Patent No. 4,536,791 to Campbell et al. relates to addressable cable television control systems with a video formatted data transmission. Campbell et al. discloses an addressable cable television control system that transmits a television program and data signal transmission from a central station to a plurality of remote user stations. Campbell et al.'s data signals include both control and text signals in video line format that are inserted on the vertical interval of the television signals. An intelligent converter at each remote user location processes the data signals to enable controlled descrambling of the television transmission to the system on the basis of channel, tier of service, special event and program subject matter. The converter includes apparatus for interfacing with a two-way interactive data acquisition and control system.

Campbell et al. teaches a head end station that includes a central data system utilizing a control computer that gathers data from a wide variety of sources and formats the data for transmission on video frequency channels. The formatted data is then transmitted by communication link to a television program processor where it is incorporated into the vertical blanking intervals of video signals by a variety of television program sources. The head end unit then transmits the combined cable television and data signal to remote subscribers. Normally, the signals are then transmitted through a cable network to a plurality of subscribers. The signals are received by an addressable converter that determines whether to descramble the received television signal based on proper subscriber, event and eligibility data stored at the receiver station, or to leave the signal in its scrambled format.

1.   Independent Claim 9

With respect to Applicants' claim 9, Campbell et al. fails to teach, *inter alia*,

receiving and detecting at said subscriber station, in an information

transmission received from said one or more remote stations, *one or more instruct*

signals which operate to cause at least a portion of a combined medium presentation to

be outputted at an output device of said subscriber station;

computing, second data at said subscriber station by processing at least one of

said first data in accordance with said one or more instruct signals;

inputting a subscriber response to said outputted combined medium

presentation, *wherein said outputted combined medium presentation includes* (i)

one of an image and a sound received at said subscriber station from a remote

transmitter station and (ii) *a portion of said second data;* and

transferring one datum of said first data and said second data from said

subscriber station to said one or more remote stations *based on said subscriber*

response.

As Applicants best understand, the Examiner reads Campbell et al. to

describe an information transmission that includes control signals within a

television signal. However, claim 9 sets forth the computation of second data at

the subscriber station by processing subscriber data in accordance with a

received instruction signal. Campbell et al. fails to teach such computation.

Claim 9 further sets forth that the received instruct signal causes output of a

combined medium presentation including (i) either an image and a sound and

(ii) a portion of the second data. Campbell et al. fails to teach such a combined

medium presentation. Also, claim 9 sets forth transferring a datum of the

subscriber data or the computed data from the subscriber station to remote

stations.

Applicants respectfully submit that Campbell et al. does not anticipate claim 9 since the reference fails to disclose every element of the claimed invention. Therefore, Applicants request the claim be permitted to issue.

Claims 10-15 & 43-46 depend upon independent claim 9. As discussed *supra*, Campbell et al. fails to disclose every element of claim 9 and thus, *ipso facto*, Campbell et al. fails to anticipate dependent claims 10-15 & 43-46. Therefore, Applicants request that claims 10-15 & 43-46 be permitted to issue.

2. Independent Claim 16

With respect to Applicants' claim 16, Campbell et al. fails to teach, *inter alia,*

generating one or more instruct signals at said transmission station, said *one or more instruct signals effective to cause said subscriber station to generate one or more subscriber specific data in accordance with said one or more instruct signals and transfer said one or more subscriber specific data to said one or more remote stations based on a subscriber response to a combined medium presentation* output at an output device at said subscriber station, *said combined medium presentation including* (i) *one of an image and a sound received at said subscriber station from a remote source and* (ii) *a datum computed at said subscriber station in response to said one or more instruct signals;* and

transmitting said information transmission and *said one or more instruct signals* from said transmission station to said subscriber station.

As Applicants best understand, the Examiner reads Campbell et al. to describe an information transmission that includes control signals within a television signal. However, claim 16 sets forth instruct signals that cause the generation of subscriber specific data and the transfer the subscriber specific data to remote stations based on a subscriber response. Campbell et al. fails to teach

any control signals that function in this manner. Claim 16 further sets forth that the subscriber response is to a combined medium presentation including a datum computed at the subscriber station in response to the instruct signals. Campbell et al. fails to teach a combined medium presentation that includes such a computed datum. Campbell et al., therefore, fails to teach instruct signals as set forth by claim 16.

Applicants respectfully submit that Campbell et al. does not anticipate claim 16 since the reference fails to disclose every element of the claimed invention. Therefore, Applicants request the claim be permitted to issue.

Claim 21-33 depends upon independent claim 16. As discussed *supra*, Campbell et al. fails to disclose every element of claim 16 and thus, *ipso facto*, Campbell et al. fails to anticipate dependent claims 21-33. Therefore, Applicants request that claims 21-33 be permitted to issue.

3. Independent Claim 17

With respect to Applicants' claim 17, Campbell et al. fails to teach, *inter alia,*

receiving *a first instruct signal which is effective* to accomplish one of:

(a)   effecting a second transmission station *to generate one or more second instruct signals,* said one or more second instruct signals *effective to cause said subscriber station to generate one or more subscriber specific data* in accordance with said one or more second instruct signals and transfer said one or more subscriber specific data *to said one or more remote stations based on a subscriber response* to a *combined medium presentation* outputted at an output device at said subscriber station, said *combined medium presentation including* (i) *one of an image and a sound received at said subscriber station from a remote source and* (ii) *a datum*

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computed at said subscriber station *in response to said one or more instruct signals;* and

(b)   effecting a receiver station *to generate one or more second instruct signals,* said one or more second instruct signals *effective to cause said subscriber station to generate one or more subscriber specific data* in *accordance with said one or more second instruct signals* and *transfer* said one or more subscriber specific data *to said one or more remote stations* based on *a subscriber response to a combined medium presentation* outputted at an output device at said subscriber station, said *combined medium presentation including* (i) *one of an image and a sound received at said subscriber station from a remote source* and (ii) *a datum* computed at said subscriber station *in response to said one or more instruct signals;*

receiving *a transmitter control signal* which *operates to communicate at least one of said first and second instruct signals* to a transmitter; and

transmitting, from said first transmission station, said information transmission and said first instruct signal, wherein said information transmission and said first instruct signal are *transmitted from said first transmission station (i) in response to said transmitter control signal, or (ii) with said transmitter control signal.*

As Applicants best understand, the Examiner reads Campbell et al. to describe an information transmission that includes control signals within a television signal. However, claim 17 sets forth a first instruct signal that effects the generation of second instruct signals that cause the generation of subscriber specific data at a subscriber station. Campbell et al. fails to teach the generation of second instruct signals at either a second transmission station or a receiver station. Claim 17 also sets forth the transfer of the subscriber specific data to remote stations based on a subscriber response to a combined medium presentation including a datum computed in response the instruct signals. Campbell et al. fails to teach a combined medium presentation including a

computed datum and, thus, fails to teach the transfer of subscriber specific data based on a subscriber response to said combined medium presentation.

Applicants respectfully submit that Campbell et al. does not anticipate claim 17 since the reference fails to disclose every element of the claimed invention. Therefore, Applicants request the claim be permitted to issue.

Claims 18-20 depend upon independent claim 17. As discussed *supra*, Campbell et al. fails to disclose every element of claim 17 and thus, *ipso facto*, Campbell et al. fails to anticipate dependent claims 18-20. Therefore, Applicants request that claims 18-20 be permitted to issue.

4. Independent Claim 34

With respect to Applicants' claim 34, Campbell et al. fails to teach, *inter alia*,

receiving one or more information transmissions at said subscriber station, said information transmissions including *generally applicable information* and *a plurality of combining control signals*, said *generally applicable information* including (1) *some of a user specific combined medium presentation* and (2) *video* to serve as a basis on which *to present said some of a user specific combined medium presentation*, at least said plurality of combining control signals *being received from said one or more remote stations;*

storing at least some of said generally applicable information and said plurality of combining control signals at said subscriber station;

selecting user specific information to output by processing said generally applicable information *in accordance with at least a first of said plurality of combining control signals;*

outputting said selected user specific information in a series of times of specific relevance *in response to at least a second of said plurality of combining control signals;*

inputting at said subscriber station *a first subscriber response to said user specific combined medium presentation,* said user *specific combined medium presentation including (i) one of an image and a sound received at said subscriber station from a remote source* and *(ii) a datum computed at said subscriber station in response to said one or more of said plurality of combining control signals;* and

transferring one or more subscriber specific data from said subscriber station to said one or more remote stations *based on said first subscriber response.*

As Applicants best understand, the Examiner reads Campbell et al. to describe a information transmission that includes control signals within a television signal. However, claim 34 sets forth inputting a first subscriber response to a user specific combined medium presentation that includes a datum computed in response to combining control signals. Campbell et al. fails to teach any user specific combined medium presentation that includes a computed datum. Claim 34 also sets forth receiving information transmissions including generally applicable information including some of the user specific combined medium presentation. As Campbell et al. fails to show a user specific combined medium presentation as presently set forth, Campbell et al. cannot teach one or more information transmissions as set forth in claim 34.

Applicants respectfully submit that Campbell et al. does not anticipate claim 34 since the reference fails to disclose every element of the claimed invention. Therefore, Applicants request the claim be permitted to issue.

Claims 35-42 depend upon independent claim 34. As discussed *supra,* Campbell et al. fails to disclose every element of claim 34 and thus, *ipso facto,* Campbell et al. fails to anticipate dependent claims 35-42. Therefore, Applicants request that claims 35-42 be permitted to issue.

III.   CONCLUSION

In accordance with the foregoing it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Thus, there being no further outstanding objections or rejections, the application is submitted as being in a condition for issuance, which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,

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